

# The NLM

Technical Bulletin News  
Mailing List Update - Appendix C

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# Technical Bulletin

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## Gold Standard Searches

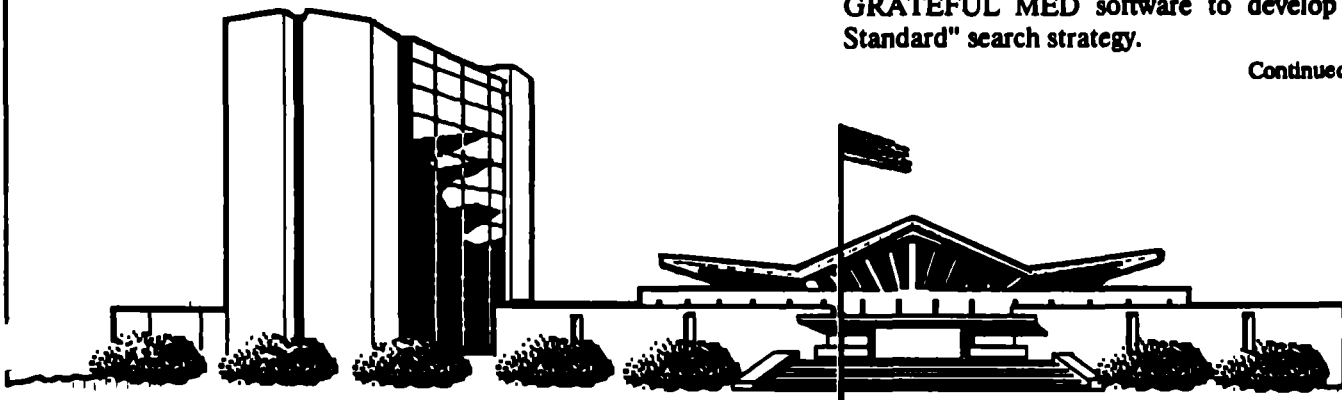
Thank you to everyone who mailed us search strategies in response to the "Gold Standard Searches" article in the July-August 1990 issue of the *Technical Bulletin*. This feature offers searchers a chance to match wits with the NLM "experts" on a search strategy. The NLM search strategies are developed here at the Library with no interaction between the requester and the searcher. The search request published in the July-August issue was:

**Changing teenage behavior through AIDS education programs.**

There were 2 "winners". Congratulations to Sue L. Raymond, Reference Librarian at the Texas College of Osteopathic Medicine, Fort Worth, TX; and to Trudy Hart, Assistant Librarian at Children's Hospital and Health Center, San Diego, CA. Winning entries will receive either a free copy of GRATEFUL MED or one hour of free search time. The winning strategies, printed in Figures 2 and 3, were selected based on the number of relevant citations retrieved as well as the search terms used. The "Gold Standard" strategy developed by the NLM "expert" is printed in Figure 1.

Honorable mention goes to Daniel C. Williams, M.D. for being the first entrant to use the GRATEFUL MED software to develop a "Gold Standard" search strategy.

Continued on page 8



MEDLARS DATABASE	TOTAL RECORDS	DATES COVERED	DATE LAST UPDATED	LATEST UPDATE TAG
ELHILL COMPUTER				
AIDSDRUGS	97		28 NOV 90	
AIDSLINE**™	44,294	JAN 80-DEC 90	23 NOV 90	9012(EM)
AIDSTRIALS	295		04 DEC 90	
AVLINE®	21,360	THROUGH 1990	07 DEC 90	
BIOETHICS®	31,302	JAN 73-SEP 90	08 DEC 90	9012(EM)
CANCERLIT®	769,076	JAN 63-NOV 90	03 NOV 90	9011(EM)
CATLINE®	670,758	THROUGH 1990	07 DEC 90	
CHEMID	183,665		28 JUL 90	
CHEMLINE®	1,007,149		30 OCT 90	9010(EM)
CLINPROT®	8,026		29 NOV 90	9011(EM)
DENTALPROJ	784		28 FEB 90	
DIRLINE®	17,782		17 NOV 90	
DOCUSER®	12,313		08 DEC 90	
HEALTH	526,458	JAN 75-DEC 90	03 NOV 90	9012(EM)
HISTLINE®	95,705		03 NOV 90	9011(EM)
MEDLINE*®	919,453	JAN 88-DEC 90	27 OCT 90	9012(EM)
MED86	651,840	JAN 86-DEC 87	25 AUG 90	
MED83	890,553	JAN 83-DEC 85	16 JUN 90	
MED80	803,364	JAN 80-DEC 82	25 AUG 90	
MED77	775,781	JAN 77-DEC 79	09 DEC 89	
MED72	1,175,516	JAN 72-DEC 76	09 JUN 90	
MED66	1,310,458	JAN 66-DEC 71	02 JUN 90	
MESH VOC®	74,218	1990	27 OCT 90	
NAME AUTH®	353,143		24 NOV 90	
PDQ®		THRU NOV 90	01 DEC 90	
POPLINE	179,615	1970-NOV 90	08 DEC 90	9012(EM)
SDILINE®	26,902	DEC 90	27 OCT 90	9012(EM)
SERLINE®	75,696	1990	12 DEC 90	
TOXLINE®	878,677	1981-1990	10 NOV 90	9011(EM)
TOXLINE65	707,374	PRE 1965-1980	31 MAR 90	
TOXLIT™	875,848	1981-1990	10 NOV 90	9011(EM)
TOXLIT65	586,405	1965-1980	01 SEP 87	

\*N.B. FILE IS UPDATED WEEKLY; THIS IS PART 4 OF 4.  
 \*\*N.B. FILE IS UPDATED WEEKLY; THIS IS PART 5 OF 5.

TOXNET COMPUTER

CCRIS	2,379		05 DEC 90
DART™	6,137		09 NOV 90
DBIR™	1,626		16 NOV 90
EMICBACK	71,871		08 JUL 90
ETICBACK	49,597		08 JUL 90
HSDB®	4,301		07 DEC 90
IRIS	435		19 NOV 90
RTECS®	106,574		21 NOV 90
TRI87	77,474		26 OCT 90
TRI88	83,216		27 NOV 90

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The NLM Technical Bulletin is an administrative document sent to formal members of NLM's MEDLARS Online Network.

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## Technical Notes

Whenever applicable, the heading of each Technical Note includes a reference to the section of the Online Services Reference Manual, 1988 that is considered most relevant to the item being discussed, e.g., (Manual 4.7.2). Users should keep in mind that the item may pertain to other sections as well.

### Service Desks

MMS	staffed
DOCLINE	staffed

### CHRISTMAS AND NEW YEAR'S HOLIDAY SCHEDULE

Here is the MEDLARS computer schedule for Christmas Day, Tuesday, December 25 and New Year's Day, Tuesday, January 1. Any details on guaranteed versus non-guaranteed hours of operation for the NLM ELHILL computer for these holidays will appear as online NEWS items the week before the holiday.

System	Rates/Status
ELHILL	non-prime non-guaranteed
TOXNET	non-prime guaranteed
DOCLINE	not available

### Service Desks

MMS	not staffed
DOCLINE	not staffed

### MARTIN LUTHER KING'S BIRTHDAY HOLIDAY SCHEDULE

TUESDAY, JANUARY 15 (ACTUAL HOLIDAY)

System	Rates/Status
ELHILL	regular guaranteed
TOXNET	regular guaranteed
DOCLINE	not applicable guaranteed

MONDAY, JANUARY 21 (OBSERVANCE)

System	Rates/Status
ELHILL	non-prime non-guaranteed
TOXNET	non-prime guaranteed
DOCLINE	not applicable non-guaranteed

### Service Desks

MMS	not staffed
DOCLINE	not staffed

### PRESIDENTS' DAY HOLIDAY SCHEDULE

MONDAY, FEBRUARY 18

System	Rates/Status
ELHILL	non-prime non-guaranteed
TOXNET	non-prime guaranteed
DOCLINE	not applicable non-guaranteed

### Service Desks

MMS	not staffed
DOCLINE	not staffed

**MEDLINE & BACKFILES DATES OF COVERAGE**

Effective December 17, citations published in 1988 were moved from the current MEDLINE file into the MED86 file. Also, at the same time, other references to articles indexed during 1990 but having a pre-1989 publication date (because these earlier journals were received during 1990) were pulled from MEDLINE and placed into the appropriate BACKFILE. There will be no change in the names of the MEDLINE BACKFILES, only in the coverage of MED86. The primary dates of coverage for MEDLINE and its BACKFILES for 1991 will be as follows:

File	Aliases	Coverage
MEDLINE	MED	1989-1991
MED86	M86, BACK86, B86	1986-1988
MED83	M83, BACK83, B83	1983-1985
MED80	M80, BACK80, B80	1980-1982
MED77	M77, BACK77, B77	1977-1979
MED72	M72, BACK72, B72	1972-1976
MED66	M66, BACK66, B66	1966-1971

**ERRATUM AND CORRECTIONS TO THE SEPTEMBER-OCTOBER 1990 TECHNICAL BULLETIN**

**On the Front Cover:**

You may want to make the following changes to your copy so that it reads as follows:

ISSN 0146-3055  
 SEPTEMBER-OCTOBER 1990  
 No. 256

(Change the issue number from 255 to 256. Add the year.)

**On Page 16:**

On page 16 of the September-October 1990 issue of the *Technical Bulletin*, please correct the entries for two subheadings to read as follows.

/CONTRADINDICATIONS /CT  
 /ULTRASONOGRAPHY /US

(Change /cn to /ct and /ul to /us . CN continues to be the abbreviation for /congenital and UL is the abbreviation for /ultrastructure; we regret the error.)

**On Appendix A:**

The 9012 (EM) actually ended with 901026 (not 901025) and the 9101 (EM) started with 901027 (not 901026). A revised Appendix A, reflecting this change, is included with this issue.

**On Appendix E:**

In the Alphabetic List of 1991 Subheading Pre-Explosions, the word effects in adverse effects is incorrectly spelled as affects. You may wish to correct it.

**MORE MEETING ABSTRACTS ADDED TO AIDSLINE**

Meeting Abstracts from the Sixth International Conference on AIDS have been added to AIDSLINE.

A total of 3,125 abstracts from the Sixth International Conference on AIDS were added to AIDSLINE. These abstracts were added directly to AIDSLINE rather than via a pull from another MEDLARS database. These abstracts all have a Secondary Source Identifier (SI) of 'ICA6/unique identifier' (e.g., ICA6/40413090) and a Publication Type (PT) of 'MEETING ABSTRACT'.

NLM will exclude these meeting abstracts from the AIDSLINE Automatic SDIs. If you would like to run an AIDSLINE SDI strategy against these abstracts, you can do it online in AIDSLINE by entering the exact name of your stored strategy followed by (sn). You would then "AND" the results with the Secondary Source Identifier (SI) for these meeting abstracts 'ICA6 (SI)'. For example, if the Gold Standard search were your stored search d007 adolescence:

YOU ARE NOW CONNECTED TO THE AIDSLINE (1980 FORWARD) FILE.

SS 1 /C?  
 USER:  
 d007 adolescence (sn)  
 PROG:  
 SS (1) PSTG (191)

SS 2 /C?  
 USER:  
 1 and ica6 (sl)  
 PROG:  
 SS (2) PSTG (39)

You can then print the results either online or offline.

### SEARCHING FOR TITLE ABBREVIATIONS

A Title Abbreviation (TA) for a journal with brackets as part of the TA as listed in the online SERLINE database, the List of Serials Indexed for Online Users, or the List of Journals Indexed for Index Medicus must be searched online without the bracket. For example, a journal with the Title Abbreviation of

J BONE JOINT SURG [AM]

must be searched online as:

J BONE JOINT SURG AM (TA)

However, Title Abbreviations (TA) that include parentheses should be searched with the parentheses. For example, a journal with the Title Abbreviation of

DENT HEALTH (LONDON)

should be searched online as:

DENT HEALTH (LONDON) (TA)

(Note: GRATEFUL MED searchers would enter the title abbreviation on the JOURNAL line of the INPUT Form Screen, following the examples outlined above, but not including the (TA) qualifier.)

### SEARCHING NOTE

INFORM is a file on the ELHILL system which may be accessed by typing "File INFORM" at a USER: prompt. The file may be used to retrieve system information rather than citations. The primary use of the file is to read the online NEWS and online EXPLAINS. As no charge is made for character transmission, it is less expensive to view the online ELHILL NEWS or EXPLAINS in INFORM than in another file.

Please note that INFORM is not a "true" database; therefore, search formulations for later use (e.g., STORESEARCH, SAVESEARCH, and OFFSEARCH) should NOT be constructed in INFORM. If a search is stored or saved in INFORM, the strategy may not run correctly against MEDLINE or any other database.

When you save or store a search formulation for later use, you need to be connected to the database against which the search is to be run (or at least to a similar file). Otherwise, the search strategy may not be compatible with the database you have selected for your search. For example, a search strategy saved or stored in MEDLINE may not run correctly in the TOXLINE database as TOXLINE and MEDLINE are dissimilar files. (SDILINE, MEDLINE and its BACKFILES are all similar files). A strategy stored or saved in any of these files may then later be run in any other of these files.)

### REMINDER: JANUARY 1991 SDILINE AUTOMATIC SDIs DELAYED DUE TO YEAR-END PROCESSING ACTIVITIES

The 9101 (EM) SDILINE Automatic SDIs for January 1991 will be run and mailed beginning December 7 rather than late November. However, please note that the 1991 MEDLINE, MEDLINE Backfiles, and SDILINE will not be made available online until Monday, December 17.

The 9102 (EM) SDILINE Automatic SDIs for February 1991 will be run over the weekend of December 28, 1990, and will be mailed during the following week.

Please note: SDILINE Automatic SDI service participants will see two sets of charges in December but none for November.

### 1990 MESH CHEMICAL TOOL

Medical Subject Headings--Supplementary Chemical Records, 1991 may now be ordered from NTIS. The order number is PB91-100248/GBB. Prices for hardcopy and microfiche are listed below:

Hardcopy - \$41.00 (U.S./Canada/Mexico);  
 \$82.00 (other countries)

Microfiche - \$21.00 (U.S./Canada/Mexico);  
 \$42.00 (other countries)

There is a \$3.00 (U.S./Canada/Mexico) shipping and handling charge required for each order (\$4.00 other countries). Please send remittance with orders to:

National Technical Information Service (NTIS)  
 5285 Port Royal Road  
 Springfield, VA 22161  
 (703) 487-4650 (for telephone orders with deposit account or credit card.)

Note: Three chemicals were inadvertently omitted from the main body of the text. They are included in an errata sheet bound in as the first page of the volume. Searchers may wish to copy or insert these entries into their proper places within the volume.

#### CLINPROT INDEX TERM LISTING

The CLINPROT Index Term listing for January 1991 is now available. It may be requested by writing to the National Cancer Institute. Please include a self-addressed label with the request. No return postage is necessary. Please send requests to:

International Cancer Research Data Bank Branch  
 National Cancer Institute  
 R.A. Bloch Building (82), Room 103  
 Bethesda, MD 20892

#### ONLINE CODES IN THE UNITED STATES

Appendix B is a map of online codes, showing the number of user codes by state for the United States and its territories.

#### PHONES LIST

Enclosed with this issue of the *Technical Bulletin* is an updated list of telephone numbers that can be used to access the NLM computers.

#### CHANGE IN TECHNICAL BULLETIN MAILING LIST - SECOND NOTICE

If you wish to continue receiving the *Technical Bulletin*, please fill out and return the form in Appendix C. If we do not receive this form from you by January 15, 1991, you will be removed from the mailing list and in 1991 you will receive only the publication *Gratefully Yours*. The *Technical Bulletin* will continue to be the major vehicle for introducing new databases and changes to existing databases to command language searchers. We urge you to take the few minutes necessary to complete and return this form, if you wish to continue receiving this publication.

### NLM DELAYS IMPLEMENTATION OF CD-ROM PRICING CHANGES ADDITIONAL INFORMATION SOUGHT

NLM has received inquiries about the recently announced changes in charges to companies that lease NLM data and distribute these data on CD-ROM products. As a result, the Library has decided to delay the implementation of any changes until June 1, 1991. This will allow users more time to examine the changes and to comment.

CD-ROM technology has changed dramatically since MEDLINE on CD-ROM first became available several years ago. From a single user at a workstation, CD-ROM capability has now advanced so that many users can now access the same disc from remote sites. NLM has encouraged these developments. CD-ROM products have made medical information more easily accessible to many more users.

Since the mid-1970's the Library has followed a policy of pricing that called for the NLM to use funds appropriated by the Congress to create and maintain its databases. The cost of access is to be borne by the user. Under this policy, the costs levied are *independent* of the medium of access. The basic pricing philosophy of shared costs has been approved by the Library's Board of Regents, the Secretary of Health and Human Services, and the Congress.

The pricing plan that was recently announced reflected months of discussions with vendors and users. Many alternatives were considered. Since the implementation of any changes is being delayed to June 1, 1991, others will now have a chance to express their concerns and to suggest reasonable alternatives.

If you or your colleagues have any suggestions or information that would be helpful in our examination of this issue, please send them to Lois Ann Colaianni, Associate Director, Library Operations, National Library of Medicine, 8600 Rockville Pike, Bethesda, Maryland, 20894 by January 31, 1991 so that the final pricing can be announced well in advance of a June implementation date.

Lois Ann Colaianni  
Associate Director  
Library Operations

Continued from page 1

The search topic immediately suggested the subject headings in the following list to most of the entrants:

ADOLESCENCE  
 ADOLESCENT BEHAVIOR  
 ADOLESCENT PSYCHOLOGY

plus one or more of the following headings:

ATTITUDE TO HEALTH+  
 KNOWLEDGE, ATTITUDES, PRACTICE  
 HEALTH BEHAVIOR  
 RISK-TAKING  
 RISK FACTORS  
 SEX BEHAVIOR+  
 SUBSTANCE ABUSE+

EDUCATION (sh)  
 HEALTH EDUCATION+  
 SEX EDUCATION  
 SEX COUNSELING  
 SCHOOL HEALTH SERVICES+  
 STUDENT HEALTH SERVICES

PRIMARY PREVENTION  
 PREVENTIVE HEALTH SERVICES  
 PREVENTION & CONTROL (sh)

The terms are grouped together to indicate similar concepts which may be "or"ed together to produce a comprehensive retrieval. The plus sign (+) after a term indicates that it may be EXPLODED; the (sh) after a term indicates that the term is a subheading. Combining together all four groups of terms constitutes the Gold Standard search.

Wisely, no one began their search in AIDSLINE with the term ACQUIRED IMMUNODEFICIENCY SYNDROME. Ms. Hart began her search with \*AIDS/pc (Figure 3) and Ms. Raymond narrowed her retrieval at the end of her search by "anding" her search results with the term \*ACQUIRED IMMUNODEFICIENCY SYNDROME". These are both reasonable but not optimal choices. A better choice would be to asterisk (\*) other terms in the search first and only use the \*AIDS as a last resort. When you include \*AIDS as a search term in this file you eliminate any relevant citations about preventing transmission of the HIV virus which may not be indexed with \*AIDS. Including the concept of prevention, with one or more of the terms shown in the list, helps to increase the

relevance of the citations received and narrow the retrieval.

No searcher included all of the terms in the list in his/her search. And people had different ideas about which file was the best one for the search. Most searchers selected AIDSLINE. However, Ms. Raymond, who ran her search in both MEDLINE and AIDSLINE, commented, "My database of choice was MEDLINE. It seemed it would be AIDSLINE, but ... it contained references to AIDS conferences that may not be readily available in many libraries..." But in fact AIDSLINE with its more comprehensive coverage is the file of choice for this search. Searching AIDSLINE allows the searcher to go to one file and pull relevant material from MEDLINE, HEALTH, and CANCERLIT. Rather than searching these three files separately, you can be assured of complete coverage in one place in AIDSLINE. In addition, AIDSLINE contains meeting abstracts from conferences, which are likely to be on the cutting edge of research and months ahead of the published journal literature. Relevant sample titles from meeting abstracts that only can be retrieved in AIDSLINE include:

AIDS and minorities: strategies for prevention.  
 AIDS prevention in junior high school students...  
 AIDS education in communities of color...

Please note that these conference citations, which have the value 'ica5' or 'ica6' in the Secondary Source Identifier (SI) field, have complete abstracts online, with the exception of tables (see the July-August 1990 *Technical Bulletin*, page 8). There is no further document to retrieve through interlibrary loan; when you print the abstract, you have retrieved all available text, except for tables, for these conference citations.

The number of citations retrieved by all participants in this exercise ranged from a low of 16 to a high of 92. However, AIDSLINE (and MEDLINE) are updated weekly; the winning strategies shown in Figures 2 and 3 were rerun here at NLM on November 20, so the retrievals shown in Figures 2 and 3 are 109 and 72 respectively (numbers higher than the original retrieval by the participants).

Again, none of the winning strategies is the absolutely correct strategy or the exact answer. These strategies are published to show how other searchers tackle a particular topic. Our thanks again to everyone who submitted an entry. Watch for the next "Gold Standard" search topic in a future *Technical Bulletin* issue.



```
SS 1 /C?
USER:
file aidsline
PROG:
YOU ARE NOW CONNECTED TO THE AIDSLINE (1980 FORWARD) FILE.

SS 1 /C?
USER:
adolescence or adolescent behavior or adolescent psychology
PROG:
SS (1) PSTG (2688)

SS 2 /C?
USER:
health behavior or exp sex behavior or cognition or risk-taking or
PROG:
CNT 2

USER:
risk factors or knowledge, attitudes, practice or exp attitude to health
PROG:
SS (2) PSTG (7875)

SS 3 /C?
USER:
sex education or sex counseling or exp school health services or
PROG:
CNT 3

USER:
student health services or exp health education or ed (sh)
PROG:
SS (3) PSTG (2132)

SS 4 /C?
USER:
1 and 2 and 3
PROG:
SS (4) PSTG (218)

SS 5 /C?
USER:
primary prevention or preventive health services or pc (sh)
PROG:
SS (5) PSTG (6319)

SS 6 /C?
USER:
4 and 5
PROG:
SS (6) PSTG (149)
```

Figure 1A - Gold Standard Search

SS 7 /C?  
 USER:  
 ts (1a) eng  
 PROG:  
 (102) SCHED (82) QUAL; CONT? (Y/N)

USER:  
 y  
 PROG:  
 SS (7) PSTG (123)

SS 8 /C?  
 USER:  
 prt 8 ti  
 PROG:

- 1  
 TI - Belgian adolescents and AIDS. A survey of risk behaviour and prevention.
- 2  
 TI - The AIDS education needs of adolescents: a theory-based approach.
- 3  
 TI - Adolescents' thoughts and feelings about AIDS in relation to cognitive maturity.
- 4  
 TI - A skills-training group intervention model to assist persons in reducing risk behaviors for HIV infection.
- 5  
 TI - Prevention of human immunodeficiency virus infection among adolescents: the interplay of health education and public policy in the development and implementation of school-based AIDS education programs.
- 6  
 TI - Coming of age in the era of AIDS: puberty, sexuality, and contraception.
- 7  
 TI - Homeless youth and AIDS: knowledge, attitudes and behaviour.
- 8  
 TI - Adolescents' knowledge of AIDS: a pilot study in northeast Tennessee.

Figure 1B - Gold Standard Search

```

SS 1 /C?
USER:
file aidsline
PROG:
YOU ARE NOW CONNECTED TO THE AIDSLINE (1980 FORWARD) FILE.

SS 1 /C?
USER:
sex education or health education
PROG:
SS (1) PSTG (1635)

SS 2 /C?
USER:
1 and adolescence or 1 and adolescent behavior
PROG:
SS (2) PSTG (366)

SS 3 /C?
USER:
sex behavior or attitude to health or knowledge, attitudes, practice or
PROG: CNT 3

USER:
health behavior
PROG:
SS (3) PSTG (2531)

SS 4 /C?
USER:
2 and 3
PROG:
SS (4) PSTG (152)

SS 5 /C?
USER:
ts (1a) eng
PROG:
(96) SCHD (82) QUAL; CONT? (Y/N)

USER:
y
PROG:
SS (5) PSTG (132)

SS 6 /C?
USER:
*acquired immunodeficiency syndrome and 5
PROG:
SS (6) PSTG (109)

```

Figure 2A - Sue Raymond

SS 7 /C?

USER:

prt 8 ti

PROG:

1

TI - Complacency, risk perception and the problem of HIV education.

2

TI - Belgian adolescents and AIDS. A survey of risk behaviour and prevention.

3

TI - AIDS knowledge and attitudes among adolescents in the rural southwest.

4

TI - Adolescents' thoughts and feelings about AIDS in relation to cognitive maturity.

5

TI - A preliminary investigation using drama in community AIDS education.

6

TI - Towards an AIDS information strategy for Zimbabwe.

7

TI - Coming of age in the era of AIDS: puberty, sexuality, and contraception.

8

TI - Homeless youth and AIDS: knowledge, attitudes and behaviour.

Figure 2B - Sue Raymond

```

SS 1 /C?
USER:
file aidsline
PROG:
YOU ARE NOW CONNECTED TO THE AIDSLINE (1980 FORWARD) FILE.

SS 1 /C?
USER:
*aids/pc
PROG:
SS (1) PSTG (3141)

SS 2 /C?
USER:
health education or adolescent behavior or health behavior or sex education or
PROG:
CNT 2

USER:
sex behavior or attitude to health or knowledge, attitudes, practice
PROG:
SS (2) PSTG (3722)

SS 3 /C?
USER:
1 and 2
PROG:
SS (3) PSTG (1059)

SS 4 /C?
USER:
3 and adolescence
PROG:
SS (4) PSTG (236)

SS 5 /C?
USER:
ts (1a) eng
PROG:
(103) SCHD (85) QUAL; CONT? (Y/N)

USER:
y
PROG: (210) SCHD (170) QUAL; CONT? (Y/N)

USER:
y
PROG:
SS (5) PSTG (192)

```

Figure 3A - Trudy Hart

SS 6 /C?

USER:

(tf) all chang: and 5

PROG:

SS (6) PSTG (5)

SS 7 /C?

USER:

(tf) all program: and 5

PROG:

SS (7) PSTG (17)

SS 8 /C?

USER:

(tf) all counsel: and 5

PROG:

SS (8) PSTG (2)

SS 9 /C?

USER:

(tf) knowledge and 5

PROG:

NP (KNOWLEDGE (TF))

\*NONE-

• Knowledge does not post because it is a stop word. However, stringsearching the Title or Abstract fields will retrieve citations.

SS 9 /C?

USER:

(tf) all educat: and 5

PROG:

SS (9) PSTG (57)

SS 10 /C?

USER:

6 or 7 or 8 or 9

PROG:

SS (10) PSTG (72)

SS 11 /C?

USER:

prt 8 t1

PROG:

- 1  
TI - Strategies for effective AIDS education in schools.
- 2  
TI - Adolescent education for sexuality--a strategy for AIDS prevention in developing cultures.
- 3  
TI - AIDS-education and prevention in the workplace in Uganda.
- 4  
TI - AIDS: education vs. ignorance--a mandatory issue.
- 5  
TI - Evaluating the outcomes of AIDS education.
- 6  
TI - Perceived effectiveness of fear appeals in AIDS education: relationship to ethnicity, gender, age, and group membership.
- 7  
TI - WSU medical students are taking steps to educate Detroit area youths, adults about STD/AIDS [letter]
- 8  
TI - Drug and AIDS education for Australian youth. The Get Real project.

Figure 3B - Trudy Hart

## Indexing Policy Changes for 1991

### Use of the rubrics [editorial], [letter] and [news]

With the implementation of Publication Types for 1991, (see page 21 of the September-October 1990 *Technical Bulletin*), the NLM's Index Section will be more rigorous in applying the rubrics [letter], [editorial] and [news] and their corresponding publication types. In the past, if a letter was particularly substantive (roughly 3 or more pages, with numerous references), indexers could index it as a regular article, rather than using the rubric [letter]. In such cases, more indexing terms would be used than are normally added for brief letters, and the author affiliation was added. Similarly, an editorial which was really more like a "lead article", with numerous references and several pages of text, would be indexed without the rubric [editorial], using more MeSH headings in order to cover all of the information discussed, and again adding the author affiliation. Multipage items appearing in the "News and Comment" section of journals such as *Science* were indexed as articles without [news].

In the future, these three rubrics (and the corresponding publication types) will always be used if the journal lists the items in the Table of Contents under Editorial, Letters, News or a synonym of one of these terms. Items that are so substantive that they would have been indexed as a regular article in the past will be indexed with more headings than are used for ordinary editorials, letters and news items. Author affiliations will not be added if the rubric and its publication type are entered.

### Main heading-subheading duplications

In the past, indexers were not allowed to index an article with a subheading and also with the main heading which corresponded to that subheading, since the main heading was limited to use of the concept in general. The rule was always to prefer the use of a subheading over the corresponding main heading. In many cases, indexers would use two different subheadings with the same main heading. An article on "Surgical treatment of fibula injuries" was indexed:

FIBULA/\*injuries  
FIBULA/surgery (not WOUNDS AND  
INJURIES/surgery)

However, in some cases, it was not possible to attach the secondary subheading to the main heading. Thus, for a

hypothetical article on mortality statistics on bromide poisoning, indexers were required to use:

BROMIDES/\*poisoning  
MORTALITY

The rule against use of both the subheading /poisoning and the main heading POISONING in the same article prevented the indexer from using POISONING/mortality. However, searchers could not always anticipate when such substitutions of main headings for subheadings had occurred. In addition, searchers are taught to prefer free-floating subheadings in both command language and GRATEFUL MED searching, so they would have looked for the allowed combination of BROMIDES/poisoning along with the free-floating subheading /mortality, but would not have anticipated the need to add MORTALITY. The Indexing Manual also allowed some exceptions, but under circumstances that made it very difficult for indexers to apply the rule consistently.

In order to respond to users' needs and indexers' desires to provide an accurate picture of the content of an article, starting in 1991 indexers will be allowed to use a subheading and its corresponding main heading if the main heading is needed for coordination with a second subheading. In such cases, the main heading will never be starred as the main point of the article and will be used only if the second subheading is not allowed with the original main heading. Thus the hypothetical article cited above would now be indexed as:

BROMIDES/\*poisoning  
POISONING/mortality

It should be emphasized that the main heading will duplicate a subheading only if further qualification of the main heading by a subheading is needed for completeness. All main headings which are subheading duplicates are annotated "IM; General only; prefer the corresponding subheading". Indexers will continue to make such terms IM (meaning star the heading to print in Index Medicus) only when the article deals with the concept in general. For 1992, the annotations may be revised to make the situation clearer in which indexers will use the main headings, unstarred, with a subheading.

### CLINICAL TRIALS

The main heading CLINICAL TRIALS and CLINICAL TRIAL (PT) are both defined as "pre-planned, usually controlled clinical studies". In the past, indexers have been careful to limit use of the main heading to studies that were explicitly identified as clinical trials, and also

fit the requirements of FDA phase III and IV studies. Users felt that the main heading was not being applied to articles which did indeed describe such clinical studies even though they were not explicitly called "clinical trial" or "FDA phase III" or "FDA phase IV". Henceforth, indexers will add CLINICAL TRIAL (PT) whenever the article describes an experimental study with human beings (or veterinary animals) if it is pre-planned and involves observations for predefined favorable and unfavorable effects. All FDA phases will take CLINICAL TRIAL (PT), although FDA phases I and II will also take the main heading DRUG EVALUATION, as indicated by its see references DRUG EVALUATION, FDA PHASE I and DRUG EVALUATION, FDA PHASE II. The main heading CLINICAL TRIALS will be reserved for articles about the concept of clinical trials in general - how they are designed, how much they cost, the ethical issues, etc.

#### Infections

For over twenty years MeSH policy has been to coordinate the organism that causes an infection NIM,

with the infection term IM. ("IM" means Index Medicus and denotes "starring" (\*) of the MeSH heading while "NIM" means non-Index Medicus and means that the MeSH heading should not be starred.) An exception was made for HIV and the simian retroviruses, which were made IM and coordinated with the appropriate disease term, also IM. More and more, genetic and immunological techniques are being used to pinpoint the causative organism of a disease and to determine drug resistance when planning therapy. Thus, the identity of the organism is now as important as the clinical entity of the infection. For 1991, all annotations in MeSH have been changed to direct indexers to use both the organism and the infection term IM. Thus, at STREPTOCOCCUS PYOGENES, they are reminded that for an infection: coordinate IM with STREPTOCOCCAL INFECTIONS (IM). This change will have a greater impact on users of Index Medicus, who will now find citations under the organism as well as under the name of the disease. If searchers star organism MeSH headings as well as disease terms, they may find that they are missing citations indexed before 1991.



## More on MeSH

### MeSH errata

Please make the following changes in the 1991 Medical Subject Headings Annotated Alphabetic List:

p. I-99

analysis - on line 3 of the scope note for this subheading, remove "and plants". The subheading /analysis may still be used with plants through the 1991 indexing year.

p. 43

remove the pre-explosion symbol ( ► ) from /analog & derivatives and add it to /analysis.

### Update on Germany

When the MeSH Tree Structures were published, three related geographical headings appeared: GERMANY; GERMANY, EAST; and GERMANY, WEST. GERMANY was reserved for historical articles while the two partitions were used for epidemiological, health care delivery, ecological, sociological, administrative, and similar articles where the political identity of the country was significant.

GERMANY, EAST and GERMANY, WEST were in existence politically from 1949 through October 3, 1990 and these headings should be used for indexing, cataloging, and searching articles or books intended to reflect thinking during that period.

Beginning with the 1991 Index Medicus and all databases that use MeSH, only GERMANY will be used for any material before May 1949 and after October 3, 1990. In effect, East Germany and West Germany have now become a part of history and will be used only when authors pinpoint their relatively short history during our lifetime.

New MeSH annotations have been written for indexers and catalogers to follow. Since the political developments occurred months after MeSH went to press, the annotations are not printed in the body of the 1991 MeSH. They are reproduced in the right column for users to insert as replacements to the information presently appearing on those pages.

### GERMANY

Z1.542.315+  
for Germany before 23 May 1949 & after 3 Oct 1990; for historical articles before & after 1949: Manual 36.11; BERLIN is also available

### GERMANY, EAST

Z1.542.248.420      Z1.542.315.445  
for East Germany 7 Oct 1949-3 Oct 90; Manual 36.11; BERLIN is also available; in German texts as DDR (Deutsche Demokratische Republik)

X DEMOCRATIC REPUBLIC OF GERMANY

### GERMANY, WEST

Z1.542.315.570  
for West Germany 23 May 1949-3 Oct 1990; Manual 36.11; BERLIN is also available; in German texts as BRD (Bundesrepublik Deutschland)

X FEDERAL REPUBLIC OF GERMANY

See also page 29 of the SERLINE update article in this issue, for changes to the entries for Germany in that file.

### Clarification of scope notes for /biosynthesis and /metabolism

The process of metabolism in living organisms consist of two phases or pathways, the degradative phase (catabolism) and the building-up or synthetic phase (anabolism).

In catabolic pathways, organic nutrient molecules, such as carbohydrates, lipids, and proteins, are degraded by stepwise reactions into smaller, simpler end products, such as carbon dioxide. In anabolic, or biosynthetic, pathways small molecules are built up into larger components of cells, such as proteins or nucleic acids. A simple comparison of these processes is that in catabolism, large molecules are broken down into smaller ones, and that in anabolism, small molecules are built up into larger ones.

The scope notes on /biosynthesis and /metabolism have been amplified to make this distinction more explicit. /metabolism is reserved for the catabolic process and /biosynthesis is reserved for the anabolic. There is no change in policy, only a clarification of wording to more clearly delineate that policy.

For a useful summary of these processes, users are referred to the following text:

Lehninger AL. Principles of Biochemistry. New York, Worth, 1982.

## Phone Facts - MNP Modems & 9600 BPS Access

### Modems with MNP Protocol

Many MEDLARS users have inquired about the benefits of MNP modems for telecommunicating with our computers. We are, therefore, providing a basic explanation which we hope will clarify a somewhat technical subject.

MNP is an acronym for Microcom Networking Protocol, a widely recognized standard for dial-up modems developed by Microcom, Inc. MNP has become popular in recent years because it enhances interactive (online searching, for example) and file transfer operations. MNP modems work at different "levels." A level 4 MNP modem provides error correction. A level 5 MNP modem provides error correction and data compression resulting in faster throughput. (Most modem levels are downwardly compatible.)

MNP enhancements are **ONLY** provided when both the calling and called modem support the specific level MNP protocol. If a modem with MNP calls a modem that does not support MNP, none of the enhancements are provided. Following is a list of the level of MNP supported by each of the networks providing access to MEDLARS.

**CompuServe:** Supports through MNP level 4 on all 2400 bps nodes.

**InfoNet:** Supports through MNP level 5 on all 2400 bps nodes.

**Telenet:** Supports through MNP level 3 on all 1200 and 2400 bps nodes, and through MNP level 5 on all 9600 bps nodes with Penril V.32 modem.

**TYMNET:** Supports through MNP level 4 on all 2400 and 9600 bps nodes.

It is important to note that MNP error correction only affects the link from the MEDLARS user to the local network node. From the network node to the NLM computers the data is protected/corrected by an

industry standard protocol (X.25). At speeds up to 1200 bps, non-MNP modems are usually adequate for a typical searcher (health professional or librarian). Where local line noise is a problem and for individuals searching at speeds greater than 1200 bps, an MNP error correcting modem will be useful to enhance the accuracy of data transmission.

When an MNP modem has successfully connected to another MNP modem the error correction state is indicated with a light on the modem and/or a message on the display such as: **CONNECT 2400/ARQ**. (ARQ stands for Automatic Report Request for error control.)

**NOTE:** Direct dial (Washington Metropolitan area) access to the National Library of Medicine does not support MNP. If the searcher wants to use MNP, access should be through one of the above networks supporting MNP.

### 9600 BPS ACCESS

In the enclosed Phones List you will find 9600 bps numbers in many major cities. Ninety-six hundred bps dial access with error correction (important for data integrity at higher dial-in speeds) is available through Telenet and TYMNET. (Currently, CompuServe and InfoNet 9600 bps dial services are not available to NLM users.) If you plan to use a 9600 bps number to access the NLM databases, be sure that the communications protocol of your modem matches that of the network. For example, if your 9600 bps modem uses V.32 protocol, select a number from the phones list that is followed by "V.32". It is also important to note that the error correction protocol of the modem you use should be compatible with that of the network (check the MNP protocol description in this article). It is always advisable to try a modem with the network you plan to use, before purchasing.

Currently, neither the Mac nor IBM versions of GRATEFUL MED automatically support 9600 bps service. If you want to use Telenet or TYMNET with GRATEFUL MED at 9600 bps, please call the Service Desk at 1-800-638-8480.

**Note:** Direct dial (Washington Metropolitan area) access to NLM databases is limited to 300, 1200 or 2400 baud, with no error correction protocol.

## New Features Added to AIDSTRIALS

Gale A. Dutcher  
Specialized Information Services, NLM

This article introduces new search enhancements using the Trial Category and Trial Location fields; these new capabilities are currently available online.

### TRIAL CATEGORIES

An AIDSTRIALS search can now be restricted to experimental trials in specific categories by using the Trial Category (TCAT) field. The purpose of adding this field is to simplify retrieval of subsets which may be difficult to extract from the database using existing fields and indexing. For example, at this time in order to retrieve all trials that accept children, searchers must enter four MeSH terms pertaining to those age groups: Infant, Newborn; Infant; Child, Preschool; Child. The trial category 'Child' will retrieve all the trials accepting patients in the 0-12 year age range. Trials may fall into more than one category. A trial for pediatric patients (CHILD) may also accept pregnant women (PREGNANCY), as shown in the following record..

UI - NIH/00151  
 PNS - NCI 89 C-121  
 TI - A Phase I Safety Study of Recombinant CD4  
 (rCD4) in Infants and Children and in  
 Pregnant Women and Newborns With HIV  
 Infection.  
 TCAT- HIV Infection  
 TCAT - Pregnancy  
 TCAT - Child

The Trial Category field is directly searchable and is displayed in the standard, abstract, full, and detailed print formats.

The TRIAL CATEGORIES and their definitions are:

**CHILD** - The study accepts patients from birth through 12 years old.

**PREGNANCY** - The study accepts pregnant patients.

**HIV INFECTION** - The main focus of the study is the treatment of the HIV infection, not related complications.

**ASYMPTOMATIC** - The study accepts patients who are HIV positive with no symptoms related to the HIV infection.

**HIV NEGATIVE** - The study accepts patients who are HIV negative.

**OPPORTUNISTIC INFECTIONS** - The main focus of the study is an AIDS-related infection (excludes malignancies).

**AIDS-RELATED MALIGNANCIES** - The main focus of the study is an AIDS-related malignancy such as Kaposi's sarcoma or lymphoma.

**NEUROLOGIC MANIFESTATIONS** - The main focus of the study is an AIDS-related nervous system disorder such as cognitive disorder, depression, neuromuscular disease, or AIDS dementia.

**VACCINES** - The main focus of the study is the use of a vaccine.

**TREATMENT IND** - Access to the drug is under the FDA rule which permits treatment with experimental drugs for life threatening illnesses prior to FDA approval of the drug.

**NATIONWIDE ACCESS** - Access to the study is on an individual basis through a local physician. This includes single patient use, and open label studies.

### TRIAL LOCATIONS

In order to permit users to print selectively only those trial locations in which they are interested, the location information has been restructured. Each occurrence of the former Trial Location (SITE) field has been placed into a new field, named for the state in which it is located. Thus, there are now 52 fields carrying location information, one for each state and the District of Columbia, and one for all other locations (U.S. territories and non-U.S. locations). The data element abbreviations used are formed by prefacing the two character postal abbreviation with 'ST.' The full name of the data element is the full name of the state. All U.S. territories (e.g. Puerto Rico, Guam, American Samoa) and all non-U.S. locations are in a field called OTHER. Examples of the data elements and the data element abbreviations are shown on the next page.

Data Element	Data Element Abbreviation	Users who wish to find a trial located in a specific location should search using either the name of the city or the state postal abbreviation. For example, to retrieve trials that are located in Miami, search (CITY) Miami. However, when printing, users must print all the locations in the state of Florida. See the example shown in Figure 1.
ALASKA	STAK	
DISTRICT OF COLUMBIA	STDC	
OHIO	STOH	
OTHER	STOT	

```

SS 1 /C?
USER:
(city) miami
PROG:
SS (1) PSTG (47)

SS 2 /C?
USER:
prt include stf1
PROG:

1
UI - FDA/00123
PNS - FDA 31C
TI - An Open-Label, Multicenter Study to Evaluate the Safety and
Tolerability of Dideoxycytidine (ddC) in Patients With AIDS or
Advanced ARC Who Previously Demonstrated Intolerance to
Zidovudine (ZDV) in Protocol N3300 or N3492.
TCAT- HIV Infection
STFL- Miami Veterans Administration Medical Center 1201 NW 16th Street
Miami, FL 33125 Contact Person: Tommie Stapleton Phone: (305)
324-3267.
STFL- Robert Schwartz, M D 3677 Central Avenue Suite D Fort Myers, FL
33901 Contact Person: Dr Robert Schwartz Phone: (813) 936-1700.
STFL- Center for Special Immunology 2021 East Commercial Blvd Suite
302 Ft Lauderdale, FL 33308 Contact Person: James Jackowski
Phone: (305) 491-8232 Contact Person: Vickie Taylor.
    
```

Figure 1 - Searching by City, Printing by State

The system displays the appropriate descriptive information as well as trials located in Miami and any other place in the state of Florida.

This feature can be used regardless of whether the search criteria included a location. If for example, the

user searches for NIH-sponsored trials of ganciclovir therapy of retinitis and then specifies a location such as California in the print statement, the location information will be included if available in the record. See the example shown in Figure 2.

```

SS 1 /C?
USER:
ganciclovir and retinitis and nih
PROG:
SS (1) PSTG (8)

SS 2 /C?
USER:
prt include stca
PROG:

1
UI - NIH/00167
PNS - NIAID ACTG 129
TI - Studies of the Ocular Complications of AIDS (SOCA) CMV Retinitis
    Trial: Foscarnet-Ganciclovir Component.
TCAT- Opportunistic Infections
STCA- Ocular Inflammatory Disease Ctr/Jules Stein Eye Institute 100
    Stein Plaza / UCLA Los Angeles, CA 90024-7000 Contact Person:
    Lesley MacArthur Phone: (213) 206-4720.
STCA- Naval Hospital/Univ of California/Dept of Ophthalmology 2760 5th
    Avenue Suite 200 / Eye Clinic San Diego, CA 92103 Contact
    Person: Steve Napoli Phone: (619) 543-5099.
STCA- San Francisco General Hospital / University of California 1001
    Potrero Street San Francisco, CA 94110 Contact Person: James
    Larson Phone: (415) 821-8305 Phone: (415) 821-8679.

2
UI - NIH/00145
PNS - NIAID ACTG 127
TI - A Phase I Pharmacokinetic and Tolerance Study of 28-Day Regimens
    of Oral Ganciclovir.
TCAT- Opportunistic Infections
STCA- San Francisco General Hospital-UCSF 995 Potrero Avenue -
    Building 80 Ward 84 San Francisco, CA 94110 Contact Person:
    Unspecified Phone: (415) 821-5089.
STCA- Mount Zion Medical Center 1600 Divisadero Street San Francisco,
    CA 94115 Contact Person: Ron Loya Phone: (415) 885-7737 Contact
    Person: Eileen Gultzer.
STCA- Davies Medical Center Castro and Duboce Street San Francisco, CA
    94114 Contact Person: Brian Christianson Phone: (415) 565-6153.
STCA- University of California at San Diego Treatment Center 2760
    Fifth Avenue Suite 300 San Diego, CA 92103 Contact Person: Cindy
    Jacobson Phone: (619) 543-8080.
STCA- University of California at San Diego Treatment Center 2760
    Fifth Avenue Suite 300 San Diego, CA 92103 Contact Person: Cindy
    Jacobson Phone: (619) 543-8080.
    
```

Figure 2 - Printing to include the state

However, if a user attempted to print location information for a state in which this trial was not being conducted, the descriptive information would be displayed, but no location information would be printed.

Users who wish to print all the trial locations associated with specific trial(s) may use the new print format SITE, as shown in Figure 3. PRINT SITE will print all the trial location fields.

```

SS 2 /C?
USER:
prt 1 ar include site
PROG:

1
UI - NIH/00167
PNS - NIAID ACTG 129
TI - Studies of the Ocular Complications of AIDS (SOCA) CMV Retinitis
    Trial: Foscarnet-Ganciclovir Component.
SID - Drug 1: DRG-0018: Ganciclovir
SID - Drug 2: DRG-0017: Foscarnet
GD - PURPOSE: To evaluate the relative effectiveness and safety of
    foscarnet versus ganciclovir for the treatment of
    cytomegalovirus (CMV) retinitis in people with AIDS; to evaluate
    the relative effect on survival of the use of these two anti-CMV
    agents in the treatment of CMV retinitis; to compare the
    relative benefits of immediate treatment with foscarnet or
    ganciclovir versus deferral of treatment for CMV retinitis
    limited to less than 25 percent of zones 2 and 3.
GD - RATIONALE: CMV retinitis is a common opportunistic infection in
    patients with AIDS. Ganciclovir is currently the only drug
    approved for treatment of CMV retinitis in immunocompromised
    patients. Ganciclovir suppresses CMV infections, and relapse
    occurs in virtually all AIDS patients when ganciclovir is
    discontinued. Because of their similar hematologic (blood)
    toxicities, the simultaneous use of ganciclovir and zidovudine
    (AZT) is not recommended. The inability of most patients to
    receive both drugs at the same time requires that patients make
    a difficult choice. More recently the drug foscarnet has become
    available for investigational use. Studies so far indicate that
    remission of CMV retinitis occurs in 36 to 77 percent of
    patients, and that relapse occurs in virtually all patients when
    the drug is discontinued. The relative effectiveness of
    foscarnet compared with ganciclovir for the immediate control of
    CMV infections is unknown. Further, the long-term effects of
    foscarnet or ganciclovir on CMV retinitis, survival, and
    morbidity are unknown. There is also no definite information on
    the relative effectiveness and safety of deferred versus
    immediate treatment for CMV retinitis confined to zones 2 and 3.
OC - Open to accrual (900921)
TCAT- Opportunistic Infections
DIS - Cytomegalovirus retinitis.
STCA- Ocular Inflammatory Disease Ctr/Jules Stein Eye Institute 100
    Stein Plaza / UCLA Los Angeles, CA 90024-7000 Contact Person:
    Lesley MacArthur Phone: (213) 206-4720.
STCA- Naval Hospital/Univ of California/Dept of Ophthalmology 2760 5th
    Avenue Suite 200 / Eye Clinic San Diego, CA 92103 Contact
    Person: Steve Napoli Phone: (619) 543-5099.

```

Figure 3A- PRINT SITE to Print all Trial Location Fields

STCA- San Francisco General Hospital / University of California 1001 Potrero Street San Francisco, CA 94110 Contact Person: James Larson Phone: (415) 821-8305 Phone: (415) 821-8679.  
 STFL- Bascom Palmer Eye Institute / University of Miami Med School 900 NW 17th Street Miami, FL Contact Person: Millie Espinal Phone: (305) 326-6351.  
 STIL- Northwestern University Medical School 303 East Superior Street Chicago, IL 60611 Contact Person: Katie Schneidwind Phone: (312) 908-8040.  
 STLA- Louisiana State University Eye Center 2020 Gravier Street Suite B New Orleans, LA 70112 Contact Person: Susan Franklin Phone: (504) 568-6700 ext 380.  
 STMD- The Johns Hopkins Hospital 600 North Wolfe Street - Wilmer 300 Baltimore, MD 21205 Contact Person: Linda Appuzzo Phone: (310) 955-2966.  
 STNY- Memorial Hospital / Memorial Sloan Kettering Cancer Center 1275 York Avenue New York, NY 10021 Contact Person: Murk-Hein Heniemann Phone: (212) 639-7237 Contact Person: Bruce Polsky Phone: (212) 639-8361 Contact Person: Susanne Campbell.  
 STNY- Mount Sinai Medical Center / Department of Ophthalmology Box 1183 One Gustave L Levy Place New York, NY 10029 Contact Person: Norma Justin Phone: (212) 241-8823.  
 STNY- New York University Med Center/ Depart of Ophthalmology 462 First Avenue / Room 224 New York, NY 10016 Contact Person: Francois Lafleur Phone: (212) 340-6485 Contact Person: Adriene Addissi Phone: (212) 340-6433.  
 STNY- Cornell University Medical College 1300 York Avenue New York, NY 10021 Contact Person: Dr Michael Giordano Phone: (212) 746-4177.  
 STTX- Cullen Eye Institute / Baylor College of Medicine 6550 Fannin Street - Smith Tower Suite 1501 Houston, TX 77030 Contact Person: Pamela Clogston Phone: (713) 798-3047.  
 STTX- Infectious Diseases Assoc of Houston/Methodist Hosp/Baylor 6550 Fannin Street Suite 2417 Houston, TX 77030 Contact Person: Colette Tuttle Phone: (713) 799-9997.

Figure 3B- PRINT SITE to Print all Trial Location Fields

## AVLINE Update

AVLINE will be updated with the 1991 MeSH vocabulary and made available with new ELHILL features on Monday, December 17, 1990.

The enhanced indexing of AVLINE to implement MeSH Heading Fragments and subheading pre-explosions under ELHILL includes the bonus of making topical subheadings searchable by means of the two-letter mnemonics. For example, citations containing the subheading /anatomy & histology can be retrieved by the search statement:

**USER:**  
ah (sh)

AVLINE searchers should note that the new ELHILL pre-explosions, ADULT (PX) and CHILD (PX) will retrieve only citations which have been assigned MeSH terms in the ADULT and CHILD trees. Because cataloging policy does not generally assign these headings, the most appropriate way to limit searches by

age group in AVLINE continues to be by the topical subheadings:

Topical Subheading	Abbreviation
/in infancy & childhood	ic
/in adolescence	ao
/in adulthood	au
/in middle age	my
/in old age	oa

**SORTing**, online and offline, is now possible on the date value in the Year of Publication (Y1) element. This allows citation listings to be sorted by the year of publication. Previously this was not possible (Manual 5.4.5), but the limitation was removed by the addition of a sort value to the Y1 element.

The NLM Shelving location (SL) for software produced before 1988 has been modified to reflect the relocation of items from the Learning Resource Center to the General Collection.



## CATLINE Update

CATLINE will be updated with the 1991 MeSH vocabulary and made available with new ELHILL features on Monday, December 17, 1990.

The enhanced indexing of CATLINE to implement MeSH Heading Fragments and subheading pre-explosions under ELHILL includes the bonus of making topical subheadings searchable by means of the two-letter mnemonics. For example, citations containing the subheading /prevention & control can be retrieved by the search statement:

USER:  
pc (sh)

CATLINE searchers should note that the new ELHILL pre-explosions, ADULT (PX) and CHILD (PX) will retrieve only citations which have been assigned MeSH terms in the ADULT and CHILD trees. Because cataloging policy does not generally assign these headings, the most appropriate way to limit searches by age group in CATLINE continues to be by the topical subheadings:

Topical Subheading	Abbreviation
/in infancy & childhood	ic
/in adolescence	ao
/in adulthood	au
/in middle age	my
/in old age	oa

Publication Type (PT) and an associated Comments (CM) element are now defined in CATLINE and the

following Publication Types will be used prospectively when appropriate:

GUIDELINE  
RETRACTED PUBLICATION  
SCIENTIFIC INTEGRITY REVIEW  
TECHNICAL REPORT

The Comments (CM) note may be used to provide citation information when the PT indicates RETRACTED PUBLICATION or SCIENTIFIC INTEGRITY REVIEW. The PT is directly searchable online; CM is not searchable. Both the Publication Type and the Comments will display in the PRT, PRT FU, PRT DL formats. CM will also display in the PRT CC format.

SORTing is now possible on the date value in the Year of Publication (Y1) element. This allows citation listings to be sorted by the year of publication. Previously this was not possible (Manual 5.4.5), but the limitation was removed by the addition of a sort value to the Y1 element.

Some classification numbers in the W1-W9 schedule have been realigned for consistency in spacing. If there are two or more characters following the letter W, a space should be left after the letter W. Following this pattern, for example, the call numbers "W4A" have been maintained to "W 4A".

As projected in last year's CATLINE update notes (February 1990 *Technical Bulletin*), pre-19th century imprints have been given the value "Unknown" in the Country of Publication (CY) field when place is undetermined. This distinguishes these citations from those 19th and 20th century citations that do not have a country value.

## SERLINE Update

A number of changes to SERLINE became available in the October 29, 1990 update of the file. One new value was added to the Abstracting & Indexing Tags (AI) field, several new fields were created for preservation information, and one new print format was defined for the file.

### NEW TAG

#### AI (Abstracting & Indexing Tags)

The new AI tag, CNL, indicates titles that are regularly indexed in Cumulated Index to Nursing and Allied Health Literature (CINAHL).

### NEW FIELDS

#### General Material Designation (GMD)

This field is singly occurring and contains a two-letter mnemonic indicating the medium of a non-print serial. The values used in SERLINE's GMD field are similar, but not identical, to the GMDs in the Anglo-American Cataloguing Rules, Second Edition Revised (AACR2R). In cases where a serial consists of multiple formats, the GMD describes the primary format and not the media of all accompanying materials. For example, Movement Disorders has an annual videocassette supplement, but because the primary medium is print, the GMD for a videocassette is not used and the videocassette

supplement is described only in the General Note (GN) field. The GMD is directly searchable by the two-letter code and displays in the PRINT FULL and PRINT DETAILED formats.

The two-letter codes used in the GMD field of SERLINE are:

Code	Medium
AC	Audiocassette
AP	Audio program (Mixed Media)
CD	CD-ROM
CF	Computer (Floppy) Disk
MF	Microfiche
MM	Microform (Reel)
SL	Slide
VC	Videocassette

#### OLDTA (OTA)

This field contains former title abbreviations used for indexed journals in NLM databases. When it is necessary to change a title abbreviation, such as when the title is recataloged or the title abbreviation is corrected to comply with current standards, the 'old' title abbreviation will be stored in the OTA field. For example, the current title Critical Reviews in Oncology and Hematology with a Title Abbreviation (TA) of Crit Rev Oncol Hematol was formerly cataloged as CRC Critical Reviews in Oncology/Hematology. Its former title abbreviation, CRC Crit Rev Oncol Hematol, is now identified in the OTA field. See Figure 1.

SS 1 /C?  
 USER:  
 (u1) sr0066443  
 PROG:  
 SS (1) PSTG (1)

SS 2 /C?  
 USER:  
 prt id  
 PROG:

1  
 TI - CRITICAL REVIEWS IN ONCOLOGY/HEMATOLOGY  
 TA - Crit Rev Onco1 Hemato1  
 FL - 1N1,1983--  
 PL - BOCA RATON FL  
 CY - UNITED STATES  
 LA - ENG  
 ZN - Z1.107.567.875  
 AI - IM  
 AI - EM  
 AI - BA  
 GN - COVER TITLE: CRC CRITICAL REVIEWS IN ONCOLOGY/HEMATOLOGY.  
 II - INDEXING BEGAN WITH V1N1,1983--.  
 IS - 1040-8428  
 JC - AGO  
 JD - HEMATOLOGY  
 JD - MEDICAL ONCOLOGY  
 SB - M  
 IA - 890911  
 XS - 1  
 RI - A  
 OJC - COH  
 OTA - CRC Crit Rev Onco1 Hemato1  
 UI - SR0066443

Figure 1 - PRINT ID Shows OLDTA (OTA) Field

Although all of the citations in MEDLINE and the BACKFILES will be changed to reflect the current TA during Year-End Processing, the use of the OTA field will enable searchers to map to the current TA before the corrections are made and will also help identify old abbreviations in the printed Index Medicus which cannot be changed.

The abbreviation in OTA is directly searchable like title abbreviations in the TA field. The OTA field may be multiply occurring, if a journal has had more than one title change. The OTA displays in the PRINT ID (Print Index) and PRINT DL (Print Detailed) formats.

**OLDJC (OJC)**

The OLDJC is the old journal title code that corresponds to the OLDTA. For example, COH is the OLDJC for Crit Rev Oncol Hematol. The OJC field is directly searchable and also appears as part of the output in the PRINT ID format.

**PERMANENT PAPER DATA**

Serials that are known to be printed on acid-free paper are now so designated in SERLINE. The specific print commands to display these fields are PRINT DETAILED, PRINT PP, and PRINT PRES.

**Permanent Paper Notice (PNT)**

This field with a value "Y" appears in the SERLINE record whenever a serial printed on acid-free paper also contains a printed notice in the issues stating that the paper used is acid-free. This field is directly searchable. The values used in the composite PP field (see below) are "Y" for permanent paper notice or blank if there is no notice.

**Permanent Paper Level (PLV)**

This field indicates the level of conformance to the ANSI standard for permanent paper. A value of "1" indicates that the journal is printed on acid-free paper. A value of "2" indicates that the paper used is acid-free in accordance with ANSI Z39.48-1984. This field is directly searchable.

**Permanent Paper Reporting Date (PDT)**

The date the permanent paper data was added to the SERLINE record is entered in this field in the format

YYMMDD, e.g., 880515 for May 15, 1988. The Permanent Paper Recording Date is rangeable.

**Permanent Paper Year (PYR) field**

The first issue published on permanent paper if known is recorded here in 4-7 characters to accommodate a simple four digit year, e.g., 1988 or a span, e.g., 1988-89. This field is directly searchable.

**Permanent Paper (PP) field**

This field contains data from PNT, PLV, PDT, and PYR as well as the volume, issue, date and part (if applicable) of the first issue published on permanent paper. This field is not searchable and can be printed only.

It is possible to have more than one occurrence of permanent paper data per title. For example, a title could first be known to be printed on acid-free paper, but not have a notice in the journal. If a notice is then printed at a later date, a second repeat of PP would be entered in SERLINE, with a Y for PNT, the date the second repeat is entered for the PDT, and the volume, issue, etc. of the first issue where the notice appeared. Similarly, if a title first has a PLV of 1 and later conforms to ANSI Z39.48-1984, a second occurrence of the PP field will be entered to record that the paper meets the specifications of the standard and with what issue that change occurred.

**PRINTING PERMANENT PAPER DATA**

The PRINT PP command displays all of the permanent paper data printing in a one line format. For example, if PNT=Y, PRT PP would look like this:

Y 1 880515 1988 58 1 Jan PT 1

If PNT is blank, PRT PP would look like this:

1 880515 1988 58 1 Jan PT 1

PRINT PRESERVE (PRT PRES) displays all permanent paper and microfilming data relevant to preservation activities. It replaces the former special print format PRT FILM. PRINT PRESERVE includes all of the fields for recording preservation microfilming at NLM in addition to the data on use of acid-free paper that appear in the PRINT PP format. See Figure 2.

```

SS 1 /C?
USER:
(u1) sr0060682
PROG:
SS (1) PSTG (1)

SS 2 /C?
USER:
prt preserve
PROG:

1
TI - BIOMATERIALS, ARTIFICIAL CELLS, AND ARTIFICIAL ORGANS
FL - 15N1,1987--
PL - NEW YORK NY
PU - MARCEL DEKKER
GN - CONTINUES: BIOMATERIALS, MEDICAL DEVICES, AND ARTIFICIAL ORGANS.
    FREQUENCY VARIES: QUARTERLY, VOL.15 (1987); 5Y, VOL.16 (1988)-

PP - 1 890915 1986 14 1-2
PP - Y 1 900918 1989 17 5
UI - SR0060682
    
```

Figure 2 - PRINT PRESERVE Shows Permanent Paper (PP) Field

### Update on Germany

Values in the ZN (MeSH Z Tree Number) field for the country of publication of the journal (Manual 11.3.45) for currently indexed titles (XS=1) have been changed to reflect the current political situation in Germany. The old Tree Numbers of Z1.542.248.420 and Z1.542.315.445 for GERMANY, EAST and Z1.542.315.570 for GERMANY, WEST are no longer used for currently indexed titles. As of the SERLINE update run on 11-09-90, all currently indexed titles published in Germany show a value in the ZN field of Z1.542.315.

In a similar manner, the values in the Country (CY) field (Manual 11.3.6) for all currently published titles in SERLINE were changed from GERMANY, EAST and GERMANY, WEST to GERMANY in the same SERLINE update on November 9, 1990.

See also page 17 in the More on MeSH article in this issue for changes to GERMANY in the MeSH file and resulting changes in the MH (MeSH Heading) field in MEDLINE and other citation files.

## Expanded Research-in-Progress (FEDRIP) Coverage in TOXLINE

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 Jeanne C. Goshorn, M.S.  
 Specialized Information Services, NLM

TOXLINE's coverage of research-in-progress was expanded with the September 1990 update, when the new Federal Research in Progress (FEDRIP) subfile, consisting of project reports on toxicology and related areas, was added. All FEDRIP entries are derived from the National Technical Information Service (NTIS) database of the same name. PHS-supported research in similar subject areas will continue to be represented in TOXLINE with records from the NIH Computer Retrieval of Information on Scientific Projects (CRISP) database. FEDRIP records, like CRISP records, are constituents of the segment of TOXLINE that deals explicitly with research-in-progress (RPROJ). The RPROJ segment of TOXLINE is identified with the acronym RPROJ as a searchable term in the Keyword Field (KW). FEDRIP records carry the acronym FEDRIP as a searchable term in the Secondary Source ID (SI) field. As a rule, RPROJ records are kept in TOXLINE for about three years; the FEDRIP subfile is expected to be updated during FY 1991 when TOXLINE is regenerated.

Reports in the FEDRIP subfile were submitted to NTIS by the various agencies cooperating in the program. The data are not as consistent in format or as free from keying errors as other TOXLINE records. Various computer processing efforts have been made by the Specialized Information Services (SIS) Division of NLM to correct some of the deficiencies and reformat the information for consistency and enhanced searchability. Hence, TOXLINE's and NTIS' records for identical projects may appear somewhat different.

FEDRIP updates to TOXLINE contain information on projects in toxicology and related areas supported by various federal government agencies. Six are represented in this update:

Agency Name	Search Term in KW Field
Department of Agriculture	AGRIC
Department of Veterans Affairs	VA
National Science Foundation	NSF
Department of the Interior, US Geological Survey	USGS
National Institute for Occupational Safety and Health	NIOSH
Department of Transportation	TRANS

There are several agency-dependent differences in the records. One of the most significant differences is in the use of fields pertaining to the dates for the inception (Y1), conclusion (Y2) or fiscal year (YR) of the project reported. We have used agency-provided years for Y1 and Y2 when given. The agency value of YR (for RPROJ, the Government fiscal year for which the project description is applicable) has been used when available; otherwise, the appropriate year has been calculated, based upon the reporting date, and inserted. Another important difference is that chemical substances are NOT searchable by CAS Registry Numbers in the FEDRIP subset.

The organization of the TOXLINE database offers the user the opportunity to structure a search to exclude research in progress or include it at various levels. For example:

1. To exclude research-in-progress, modify the search statement with AND NOT RPROJ (KW).
2. To include all research-in-progress reported in the RPROJ section, do not limit the search statement.
3. To include only research-in-progress reported from the NIH CRISP database, modify the search statement with AND CRISP (SI).
4. To view research-in-progress reported in TOXLINE as supported specifically by one of the various agencies contributing to FEDRIP, create the retrieval set by combining the FEDRIP secondary source designation with the agency mnemonic, e.g., FEDRIP (SI) AND NIOSH (KW).

The annotated search shown in Figure 1 retrieves notices of research-in-progress for studies in the FEDRIP subfile pertaining to neurotoxic effects in workers. Such studies sponsored by the U.S.

Department of Agriculture are identified, and a detailed print of a NIOSH sponsored study concerning neurotoxic effects of select metals to workers is provided.

```

FILE TOXLINE

PROG:
YOU ARE NOW CONNECTED TO THE TOXLINE (1981 FORWARD, NON-ROYALTY) FILE.

SS 1 /C?
USER:
(SI) FEDRIP

PROG:
SS (1) PSTG (1499)

SS 2 /C?
USER:
(TW) WORKER OR WORKERS      • Keyword terms are not applied uniformly
                               across the subfile, with the exception
                               of the agency designations. Hence, the
                               (TW) qualifier should be used in subject
                               formulation, rather than the more
                               restrictive (KW) qualifier.

PROG:
SS (2) PSTG (35323)

SS 3 /C?
USER:
(TW) ALL NEUROTOX:

PROG:
SS (3) PSTG (10953)

SS 4 /C?
USER:
1 AND 2 AND 3

PROG:
SS (4) PSTG (12)

SS 5 /C?
USER:
4 AND AGRIC (KW)

PROG:
SS (5) PSTG (2)

SS 6 /C?
USER:
PRT AU, TI, YR

PROG:

1
AU - DELLINGER JA
TI - MINIMIZING OCCUPATIONAL EXPOSURE TO PESTICIDES
YR - 89

2
AU - WILSON BW
TI - MINIMIZING OCCUPATIONAL EXPOSURE TO PESTICIDES
YR - 88
    
```

Figure 1A - Searching in TOXLINE to retrieve FEDRIP records

```

SS 6 /C?
USER:
(TM) ALL METAL:

PROG:
SS (6) PSTG (30404)

SS 7 /C?
USER:
4 AND 6

PROG:
SS (7) PSTG (2)

SS 8 /C?
USER:
PRT AU,TI,YR

PROG:

1
AU - ANGER K
TI - NEUROTOXICITY FROM EXPOSURES TO HEAVY METALS
YR - 86

2
AU - MULLAN RJ
TI - NATIONAL REPORTING OF SELECTED OCCUPATIONAL DISEASES
YR - 86

SS 8 /C?
USER:
PRT 1 DL INCLUDE YR      * The appropriate Fiscal Year will print only
                           if the YR field is specifically requested.

PROG:

1
SI - FEDRIP/89/01300759
AU - ANGER K
AD - NIOSH DBBS APEB, CINCINNATI, OH
TI - NEUROTOXICITY FROM EXPOSURES TO HEAVY METALS
SO - FEDRIP DATABASE, NATIONAL TECHNICAL INFORMATION SERVICE (NTIS)
AM - A
ID - NIOSH V0BCYY249
SA - NAT. INST. FOR OCCUPATIONAL SAFETY AND HEALTH
Y1 - 831000
Y2 - 881200
AB - RPROJ/FEDRIP GOAL: Conduct a systematic program of laboratory/worksite
      research to assess neurologic hazards from acute and chronic exposures
      to selected chemicals and rf/microwave radiation sources in high-risk
      occupations. HOW: Project provides neurobehavioral assessment of workers
      in occupations or industries with chronic exposures to select heavy
      metals with known neurotoxic properties. ACP86: Complete protocol
      based on peer review comments, obtain clearances/approvals, and
      arrange/schedule tests for workers occupationally exposed to one metal
      (e.g., tin, manganese, arsenic). ACP87: Complete neurobehavioral
      testing of workers exposed to second metal, and complete neurobehavioral
      assessment report of first metal studied. ACP88: Complete
      neurobehavioral testing of workers exposed to third metal, and complete
      neurobehavioral assessment report on second metal studied. METH: The
      project will follow the same general strategy in industries using each
      of four heavy metals. A preliminary survey of exposures will be
      conducted in several plants to characterize the exposure levels and
      control systems (e.g., work practices) in each industry. A sample of
      100-200 workers exposed to the metal at their job and a comparable
      number of non-exposed workers in an allied setting will then be tested
      for evidence of neurotoxicity. Tests for effects typical of occupational
      neurotoxicity will be used, as well as those tests aimed at disclosing
      effects reported to occur for the metal under evaluation. Differences
      in test results between exposed and non-exposed worker groups will be
      evaluated to define the extent of any neurotoxic effect and the nature
      of the dysfunction. Results will identify neurotoxic effects of current
      day industrial exposures to select metals.
KW - U.S. NATL INST FOR OCCUPATIONAL SAFETY AND HEALTH
KW - NIOSH
KW - FEDRIP
KW - RPROJ
KW - NEUROTOXIC DISORDERS
KW - INVESTIGATIVE RESEARCH
KW - ADMINISTRATION
KW - PRODUCTION AND REPAIR TRADES PEOPLE
KW - MINERS
KW - MANUFACTURING
KW - MINING
KW - MANGANESE
KW - TIN
EM - 9009      * Note that chemical substances are
YR - 86        NOT searchable by CAS Registry
                Numbers in the FEDRIP subset.
    
```

Figure 1B - Searching in TOXLINE to retrieve FEDRIP records



## CROSSFILE Searching in TOXNET'S TRI Files

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The basic principles of CROSSFILE searching for the CAS Registry Number (RN)-linked group of TOXNET files were described in the June 1990 *Technical Bulletin*. This article will concentrate on using CROSSFILE techniques for the annual TRI (Toxic Chemical Release Inventory) series of files, currently TRI87 and TRI88. The parallel organization of the two articles emphasizes the fact that the approaches to CROSSFILE searching are virtually identical. What differs is the way records are linked in the two CROSSFILE groups and, of course, the different contents of the files.

In each of the RN-linked files (i.e., HSDB, RTECS, CCRIS, IRIS), there is one record and one unique RN for each chemical. This is not the case in TRI. In TRI, there are usually many records for any one chemical, since many facilities have reported releases of that chemical. Similarly, any one facility may be reporting on the releases of several chemicals, each one with its own record. In TRI, a unique record is represented by a specific facility/chemical name combination. Because of variants in facility names and the possibility of multiple locations of a facility in a given city, it is actually the facility number (FACN) in conjunction with the chemical name (NAME) that is used to provide invisible linkages across the TRI files.

Let's say that in the TRI88 file, there was a company called Crystal Mineral Corporation at 27 Winthrop Drive in Denver, Colorado and it reported on chlorine releases. This specifically located facility is identified by the Environmental Protection Agency (EPA) with a unique facility number (FACN), a 15-character alphanumeric identifier, created from the facility's zip code and parts of its name and street address. The example above would be assigned an FACN of 80239CRYST27WIN. This FACN would apply to all records representing this specific facility, whether the name in the record appears as shown above or as Crystal Mineral Corp., Crystal Minerals, etc. TRI CROSSFILE operations to search for or print this record, would link it with the TRI87 record, if one existed, for this FACN releasing chlorine.

To perform simultaneous CROSSFILE searches for TRI87 and TRI88, you may select both databases from the Database Selection Screen during logon, or you may enter a FILE TRI87 TRI88 command during your search session. TOXNET will respond with the following prompt, indicating that you are directly connected to both files:

```
[TRI87,TRI88] SS 1/cf?
```

Suppose you want to retrieve all records for the aforementioned Crystal Mineral Corporation and you have identified its FACN in a previous search. The example shown in Figure 1 illustrates a search by FACN in TRI87 and TRI88.

```

[TRI87,TRI88] SS 1/cf?
USER:
(facn) 80239cryst27win
SS (1) PSTG (3)

[TRI87,TRI88] SS 2/cf?
USER:
prt erelt
-----

1          - TRI87
FACN      - 80239CRYST27WIN
FNM       - CRYSTAL MINERAL CORPORATION
NAME      - CHLORINE
RN        - 7782-50-5
SUBN     - 7777-87-CO
ERELT    - 550 lbs./rep yr - 1987

1          - TRI88
FACN      - 80239CRYST27WIN
FNM       - CRYSTAL MINERAL CORPORATION
NAME      - CHLORINE
RN        - 7782-50-5
SUBN     - 8888-88-CO
ERELT    - 1250 lbs./rep yr - 1988
-----

2          - TRI87
FACN      - 80239CRYST27WIN
FNM       - CRYSTAL MINERAL CORPORATION
NAME      - NITRIC ACID
RN        - 7697-37-2
SUBN     - 72727-87-CO
ERELT    - 125 lbs./rep yr - 1987
-----

3          - TRI88
FACN      - 80239CRYST27WIN
FNM       - CRYSTAL MINERAL CORP.
NAME      - CADMIUM
RN        - 7440-43-9
SUBN     - 54545-88-CO
ERELT    - 2400 lbs./rep yr - 1988
-----

```

Figure 1 - Searching by Facility Number (FACN)

The retrieval in Figure 1 demonstrates a case where 3 postings represent 4 actual records. There are 2 records for the first posting, 1 record for the second posting, and 1 record for the third posting. The first posting illustrates that the facility reported chlorine releases in 1987 and 1988. The second posting illustrates that the company reported nitric acid releases in 1987 but not in 1988 and the third posting illustrates that the company reported cadmium releases in 1988 but not in 1987. A fairly straightforward approach to the CROSSFILE

technique was used in this search. More complicated techniques are illustrated in the sections that follow.

**Connection to One File, Printing from Other Files**

TRI CROSSFILE printing allows you to perform a search in one TRI file and print data related to the retrieved records from another file. Consider the hypothetical search session shown in Figure 2, in which the user initially searches TRI88 but then requests a PRINT from TRI87:

```

[TRI88] SS 1/cf?
USER:
(fst) nh and lead (name)
SS (1) PSTG (15)

[TRI88] SS 2/cf?
USER:
prt 1:2 tri87/airt

-----

1          - TRI87
FACN      - 99999MYSTP257
FNM       - MYSTIC PRODUCTS
NAME      - LEAD
RN        - 7439-92-1
SUBN      - 12345-87-NH
AIRT      - 250 lbs./rep yr - 1987

1          - TRI88
FACN      - 99999MYSTP257
FNM       - MYSTIC PRODUCTS INC.
NAME      - LEAD
RN        - 7439-92-1
SUBN      - 54321-88-NH
DATE      - 900409
RLEN      - 441

-----

2          - TRI88
FACN      - 88888CARDIF
FNM       - CARDINAL FINISHING
NAME      - LEAD
RN        - 7439-92-1
SUBN      - 98765-88-NH
DATE      - 900302
RLEN      - 308

-----

```

Figure 2 - Searching in TRI88 and Printing from TRI 87

In this example, the user has searched for facilities in New Hampshire reporting on the chemical, lead. Fifteen postings are retrieved. Each of these records, however, may be invisibly linked with a TRI87 record (based upon the facility/chemical name linkage). Thus, the 15 postings could actually represent a maximum of 30 records, if each TRI88 record had a TRI87 match.

The user next requests that the data element AIRT (Total Air Release) be printed for records in the TRI87 file, if any, which are linked to the first two TRI88 records. The FILE/FIELD mnemonic combination (TRI87/AIRT) is used to specify the printing of the TRI87 data. Record 1 for TRI87 shows the company Mystic Products releasing a total of 250 pounds of lead into the air. Notice that there is no display of AIRT data for Record 1 for TRI88 since this information was not requested in the PRINT command. Posting 2 is an example of a record in TRI88 without a corresponding TRI87 record. Cardinal Finishing reported TRI data on

lead for the 1988 reporting year, but not for the 1987 reporting year.

Thus, to summarize, a search performed in TRI88 yielded a retrieval set of 1988 records each of which may be linked by facility/chemical name to 1987 records. Standard information (FACN, FNM, NAME, RN, SUBN, DATE, RLEN) for the file to which the user is formally connected (TRI88 in this example) always prints by default. To eliminate viewing these data, the PRT command could be reformulated as - prt tri87/airt exclude tri88/sd. This excludes the standard (sd) data for TRI88 and displays only the data from the TRI87 records.

### Connection to Multiple Files, Searching Them

To search explicitly in the multiple TRI file environment, type the command "FILE TRI87 TRI88". If you want water release information related to McLaren Industries in Tucson, Arizona, the strategy shown in Figure 3 could be used.

```

[TRI88] SS 2/cf?
USER:
file tri87 tri88

[TRI87,TRI88] SS 2/cf?
USER:
(fnm) mclaren and az/tucson (fstcy)
SS (2) PSTG (17)

[TRI87,TRI88] SS 3/cf?
USER:
prt hits, fad, water 7:9
-----
7          - TRI87
FACN      - 77777MCLRN23CIC
FNM       - MCLAREN INDUSTRIES
NAME      - ZINC COMPOUNDS
RN        - ND
SUBN      - 77771-87-AZ
FAD       - 23 CICERO STREET
WE        -
o RSTR - RECEIVING STREAM      : HOPI LAKE
o WR   - WATER RELEASE         : 25 lbs./rep yr - 1987
o SPER - PERCENT FROM STORMWATER : 0.00%
WT      - 25 lbs./rep yr - 1987
FCTY    - TUCSON
FST     - AZ

7          - TRI88
FACN      - 77777MCLRN23CIC
FNM       - MCLAREN INDUSTR
NAME      - ZINC COMPOUNDS
RN        - ND
SUBN      - 77772-88-AZ
FAD       - 23 CICERO ST.
WE        -
o RSTR - RECEIVING STREAM      : HOPI LAKE
o WR   - WATER RELEASE         : 5 lbs./rep yr - 1988
o SPER - PERCENT FROM STORMWATER : 0.00 %
WT      - 5 lbs./rep yr - 1988
FCTY    - TUCSON
FST     - AZ
    
```

Figure 3A - Search Facility Name & City, PRINT Water

```

-----
8          - TRI87
FACN      - 77777MCLRN23CIC
FNM       - MCLAREN INDUSTRIES
NAME      - 2-ETHOXYETHANOL
RN        - 110-80-5
SUBN      - 88881-87-AZ
FAD       - 23 CICERO ST.
WE        -
o RSTR - RECEIVING STREAM      : NA
o WR   - WATER RELEASE         : 0/0 lbs./rep yr - 1987
o SPER - PERCENT FROM STORMWATER : 0.00%
WT     - 0 lbs./rep yr - 1987
FCTY    - TUCSON
FST     - AZ

-----
9          - TRI88
FACN      - 77780MCLRN1709P
FNM       - MCLAREN INDUSTRIES OF AMERICA
NAME      - SULFURIC ACID
RN        - 7664-93-9
SUBN      - 99992-88-AZ
FAD       - 1709 Plutarch's Highway
WE        -
o RSTR - RECEIVING STREAM      : Herodotus Tributary
o WR   - WATER RELEASE         : 892 lbs./rep yr - 1988
o SPER - PERCENT FROM STORMWATER : 0.00%
WT     - 892 lbs./rep yr - 1988
FCTY    - TUCSON
FST     - AZ

-----

```

Figure 3B - Search Facility Name & City, PRINT Water

In the previous example, Posting 7 actually consists of two records, one from each of TRI87 and TRI88. That is, matches were found for the FNM and FSTCY combination as specified in the search. Both records reference the same facility at the same location releasing the same chemical. Posting 8 consists of only one record found in TRI87. The search requirements were not met for TRI88. On the other hand, Posting 9 consists of only

one record found in TRI88. There was no match for TRI87. Notice also, that Posting 9 represents the same facility name as Postings 7 and 8, but at a different street address and, therefore, with a different FACN.

**Connection to One File, Searching Other Files**

You may be connected to TRI87 and search TRI88 or vice versa as the example in Figure 4 illustrates:

```

[TRI87] SS 3/cf?
USER:
(tr188/otm) incineration and greater than 10000 (tri88/otr)
and co (tri88/fst)
SS (3) PSTG (27)

[TRI87] SS 4/cf?
USER:
prt 1 tri88/hits complete

-----

1      - TRI87
FACN  - 33333BONGOSYN7
FNM   - BONGO BONGO SYNTHETIC DRUM SKINS
NAME  - P-PHENYLENEDIAMINE
RN    - 106-50-3
SUBN  - 22222-87-CO
DATE  - 890329
RLEN  - 689

1      - TRI88
FACN  - 33333BONGOSYN7
FNM   - BONGO BONGO SYNTHETIC DRUM SKINS
NAME  - P-PHENYLENEDIAMINE
RN    - 106-50-3
SUBN  - 33333-88-CO
OLOCI -
o OEPAN - OFF-SITE EPA ID      : C09876543
o ONM   - OFF-SITE NAME       : BURNIT BROTHERS
o OAD   - STREET ADDRESS     : RT. 77
o OCTY  - CITY                : DENVER
o OST   - STATE               : CO
o OZIP  - ZIP CODE            : 80239
o OCO   - COUNTY              : DENVER
o OCTL  - CONTROL             : FACILITY, PARENT
o OTR   - OFF-SITE LOCATIONS  : 14,000 lbs./rep yr - 1988
          TRANSFER              Spec. Est.
o OB    - BASIS OF ESTIMATE   : Mass Balance Calculations
o OTM   - OFF-SITE TREATMENT  : (M50) Incineration/Thermal
          METHOD                  Treatment

-----

```

Figure 4 - Connected to TRI87 and Searching in TRI88

The user in this example is connected to TRI87 but searches TRI88 for Colorado records where more than 10000 pounds of chemicals are transferred to commercial waste sites for purposes of incineration. Users are reminded that the PRT HITS COMPLETE prints the SUBFIELD upon which a HIT was made, along with all associated SUBFIELDS. Note that the "standard" TRI87 data will also print out as a default unless it is specifically excluded by altering the PRT command to read: prt 1 tri88/hits complete exclude tri87/sd.

**Concluding Remarks**

CROSSFILE searching in the TRI group depends upon

the facility/chemical name link. In some respects, there is less mental mnemonic juggling to do here than in the RN-linked group, since all TRI files contain the same data elements. As the annual TRI series continues to grow, the CROSSFILE feature will become more and more useful. It will allow you to investigate trends over time. TRI CROSSFILE searching in conjunction with numerical manipulations and SORTING, to be covered in a future article, will give you powerful tools to evaluate this valuable environmental release data. As an added benefit for novice users, CROSSFILE for menu searching is under development and will be available within a few months.

# Serials Update

## INDEXED TITLES UPDATE, SEPTEMBER - OCTOBER 1990

The following titles cited in MEDLINE, HEALTH, and POPLINE have recently been selected for indexing, undergone a title change, or ceased publication. This list is not cumulative; the information provided is only for titles whose status has changed since the last UPDATE.

More detailed information may be found in SERLINE. For further information, please contact MMS or Ms. Esther Baldinger, (301) 496-1276, Technical Services Division, NLM.

## TITLES SELECTED FOR INDEXING, SEPTEMBER - OCTOBER 1990

- |   |  |
|---|--|
| <p><b>HLI</b> ADVANCES IN HEALTH ECONOMICS AND HEALTH SERVICES RESEARCH. SUPPLEMENT<br/>ADV HEALTH ECON HEALTH SERV RES SUPPL<br/>1,1990--<br/>JAI PRESS<br/>GREENWICH CT UNITED STATES<br/>SUPPLEMENT TO: ADVANCES IN HEALTH ECONOMICS AND HEALTH SERVICES RESEARCH.<br/>INDEXING BEGAN WITH V1,1990.<br/>M1 AD621TA<br/>SR0069124 JC: AHS</p> | <p><b>IM</b> PEDIATRIC PULMONOLOGY. SUPPLEMENT<br/>PEDIATR PULMONOL SUPPL<br/>1,1987--<br/>WILEY-LISS<br/>NEW YORK NY UNITED STATES<br/>SUPPLEMENT TO: PEDIATRIC PULMONOLOGY.<br/>INDEXING BEGAN WITH V1,1987.<br/>M1 PE171RA<br/>SR0069220 JC: AMJ</p>  |
| <p><b>IDL</b> ODONTOLOGIA PRACTICA<br/>ODONTOL PRACT<br/>1N1,JAN 1990?--<br/>FORLAGET AREUM APS<br/>GENTOFTE DENMARK<br/>INDEXING BEGAN WITH VIN2,APR 1990<br/>ON ORDER 0905-2070<br/>SR0069327 JC: AXM<br/>FORLAGET AREUM APS,KONEGELYSVEJ 23,2820<br/>GENTOFTE,DENMARK</p>  | <p><b>INI</b> SANTE QUEBEC<br/>SANTE QUE<br/>1N1,JUN 1990--<br/>CORPORATION PROFESSIONNELLE DES INFIRMIERES ET INFIRMIERS AUXILIAIRES DU QUEBEC<br/>MONTREAL CANADA<br/>INDEXING BEGAN WITH VIN1,JUN 1990.<br/>M1 SA832D 1120-3983<br/>SR0069199 JC: AMT<br/>C.P.I.I.A.Q.,531 EST RUE<br/>SHERBROOKE,MONTREAL QC,H2L 1K2</p> |

## TITLE CHANGES, SEPTEMBER - OCTOBER 1990

- |  |  |
|--|--|
| <p><b>IM</b> ADVANCES IN PHARMACOLOGY<br/>ADV PHARMACOL<br/>21,1990--<br/>ACADEMIC PRESS<br/>NEW YORK NY UNITED STATES<br/>CONTINUES: ADVANCES IN PHARMACOLOGY AND CHEMOTHERAPY.<br/>IN PROCESS<br/>SR0069318 JC: AXI</p>  | <p><b>HLI</b> HOSPITAL REVENUE REPORT<br/>HOSP REVENUE REP<br/>8N9,SEP 1990--<br/>UNITED COMMUNICATIONS GROUP<br/>BETHESDA MD UNITED STATES<br/>FORMED BY THE UNION OF: PART A NEWS, AND: HEALTH CARE MARKETER.<br/>M1 H0876N 1052-8733<br/>SR0069306 JC: AXD</p>        |
| <p><b>IDL</b> ENDODONCIA<br/>ENDODONCIA<br/>8N1,JAN-MAR, 1990--<br/>EDICIONES ERGON<br/>MADRID SPAIN<br/>CONTINUES: REVISTA ESPANOLA DE ENDODONCIA.<br/>ORGANO DE LA ASOCIACION ESPANOLA DE ENDODONCIA.<br/>ON ORDER<br/>SR0069303 JC: AM9</p>                             | <p><b>IM</b> INTERNATIONAL JOURNAL OF EXPERIMENTAL PATHOLOGY<br/>INT J EXP PATHOL<br/>71N4,AUG 1990--<br/>BLACKWELL<br/>OXFORD ENGLAND<br/>BIMONTHLY. CONTINUES: JOURNAL OF EXPERIMENTAL PATHOLOGY (OXFORD, ENGLAND).<br/>M1 IN766IP 0959-9673<br/>SR0069255 JC: AM3</p> |
| <p><b>HLI</b> HEALTHCARE HAZARDOUS MATERIALS MANAGEMENT<br/>HEALTHC HAZARD MATER MANAGE<br/>3N10,JUL 1990--<br/>ECRI<br/>PLYMOUTH MEETING UNITED STATES<br/>PA<br/>CONTINUES: HOSPITAL HAZARDOUS MATERIALS MANAGEMENT.<br/>M1 HE608RCC 1050-575X<br/>SR0069254 JC: AM2</p> | <p><b>INI</b> JOURNAL OF VASCULAR NURSING<br/>J VASC NURS<br/>8N3,SEP 1990--<br/>SOCIETY FOR PERIPHERAL VASCULAR NURSING<br/>NORWOOD MA UNITED STATES<br/>CONTINUES: SPVN.<br/>M1 J0978P<br/>SR0069292 JC: AM8</p>   |

<p>IM MECHANISMS OF DEVELOPMENT MECH DEV 33N1,JAN 1991-- ELSEVIER LIMERICK IRELAND CONTINUES: CELL DIFFERENTIATION AND DEVELOPMENT. ON ORDER SR0069279 JC: AXF</p>	<p>IM REVUE ROUMAINE DE VIROLOGIE REV ROUM VIROL 41N1,JAN-MAR 1990-- EDITURA ACADEMIEI ROMANE BUCURESTI ROMANIA CONTINUES: VIROLOGIE IN PROCESS 0035-4082 SR0069359 JC: AXN</p>
--	---

IM ROMANIAN JOURNAL OF NEUROLOGY AND PSYCHIATRY  
ROM J NEUROL PSYCHIATRY  
28,1990--  
EDITURA ACADEMIEI ROMANE  
BUCURESTI ROMANIA  
CONTINUES: NEUROLOGIE ET PSYCHIATRIE.  
M1 ROS27K 0035-3981  
SR0069218 JC: AMY

TITLES NO LONGER INDEXED AS OF SEPTEMBER - OCTOBER 1990

IM ACTA POLONIAE PHARMACEUTICA  
ACTA POL PHARM  
1,1937-46,1989  
POLSKI TOWARZYSTWO FARMACEUTYCZNE  
WARSZAWA POLAND  
INDEXING FOR ONLINE FILES BEGAN WITH  
V22N3,1965.  
M1 AC927 0001-6837  
A08595000 JC: IVC

IM PEDIATRIA POLSKA  
PEDIATR POL  
1,1921-64,1989  
PANSTWOWY ZAKLAD HYDAMNICTM LEKARSKICH  
WARSZAWA POLAND  
SUPERSEDES PRZEGLED PEDYATRYCZNY. CALLED  
PEDJATRJA POLSKA, 1921-36. SUSPENDED JUNE  
1939-46.  
INDEXING FOR ONLINE FILES BEGAN WITH  
V40N5,MAY 1965.  
M1 PE159 0031-3939  
P06100000 JC: OM2

IM EXPERIMENTAL BIOLOGY  
EXP BIOL  
43N1,JUL 1984-48N6,MAY 1990  
SPRINGER INTERNATIONAL  
BERLIN GERMANY, WEST  
CONTINUES: REVUE CANADIENNE DE BIOLOGIE  
EXPERIMENTALE.  
M1 EX47J 0176-8638  
SR0052892 JC: EQ2

IM TRANSACTIONS - NEW ORLEANS ACADEMY OF  
OPHTHALMOLOGY  
TRANS NEW ORLEANS ACAD OPHTHALMOL  
29,1981-36,1988  
C V MOSBY  
ST. LOUIS MO UNITED STATES  
PROCEEDINGS OF THE 29TH (1980)-36TH (1987)  
ANNUAL SYMPOSIUM OF THE ACADEMY. EARLIER  
VOL. CALLED: SYMPOSIUM OF THE NEW ORLEANS  
ACADEMY OF OPHTHALMOLOGY. VOLS. FOR  
1965-1980 AND 1990 (38TH ANNUAL SYMPOSIUM,  
1989)- CATALOGED AS MONOGRAPHS AT NLM.  
PROCEEDINGS OF THE 37TH ANNUAL SYMPOSIUM  
NEVER PUBLISHED.  
INDEXING BEGAN WITH V29,1981.  
M1 TR226S 0077-8605  
T17460000 JC: MAG

IM GINEKOLOGIA POLSKA  
GINEKOL POL  
1,1922-60N10/12,OCT/DEC 1989  
PANSTWOWY ZAKLAD HYDAMNICTM LEKARSKICH  
WARSZAWA POLAND  
CALLED GINEKOLOGJA POLSKA, 1922-39.  
PUBLICATION SUSPENDED SEPT? 1939-47  
INDEXING FOR ONLINE FILES BEGAN WITH  
36N3,MAR 1965.  
M1 GI217 0017-0011  
G08160000 JC: FR3

IM ZDRAVOTNICKE AKTUALITY  
ZDRAV AKTUAL  
N1,1946-N219,1988?  
AVICENUM  
PRAHA CZECHOSLOVAKIA  
INDEXING BEGAN WITH N158,1964.  
M1 ZD862  
Z02040000 JC: Y4D

IM ITALIAN JOURNAL OF SURGICAL SCIENCES  
ITAL J SURG SCI  
11,1981-19M4,1989  
MASSON ITALIA EDITORI  
MILANO ITALY  
CONTINUES: SURGERY IN ITALY.  
INDEXING BEGAN WITH V13N1,1983.  
M1 IT36P 0392-3525  
I41137000 JC: GYY



1991 WEEKLY UPDATE SCHEDULE FOR MEDLINE

Entry Month	Updated MEDLINE Available	Date of Entry (DA) Ranges
9101 (EM)	Dec 17	901027-901121*
9102 (EM)	Dec 29	901123-901227*
9103 (EM)		
Part 1	Jan 5	901228-910103
Part 2	Jan 12	910104-910110
Part 3	Jan 19	910111-910117
Part 4	Jan 26	910118-910124
9104 (EM)		
Part 1	Feb 2	910125-910131
Part 2	Feb 9	910201-910207
Part 3	Feb 16	910208-910214
Part 4	Feb 23	910215-910221
9105 (EM)		
Part 1	Mar 2	910222-910228
Part 2	Mar 9	910301-910307
Part 3	Mar 16	910308-910314
Part 4	Mar 23	910315-910321
Part 5	Mar 30	910322-910328
9106 (EM)		
Part 1	Apr 6	910329-910404
Part 2	Apr 13	910405-910411
Part 3	Apr 20	910412-910418
Part 4	Apr 27	910419-910425
9107 (EM)		
Part 1	May 4	910426-910502
Part 2	May 11	910503-910509
Part 3	May 18	910510-910516
Part 4	May 25	910517-910523
9108 (EM)		
Part 1	Jun 1	910524-910530
Part 2	Jun 8	910531-910606
Part 3	Jun 15	910607-910613
Part 4	Jun 22	910614-910620
Part 5	Jun 29	910621-910627
9109 (EM)		
Part 1	Jul 6	910628-910703*
Part 2	Jul 13	910705-910711*
Part 3	Jul 20	910712-910718
Part 4	Jul 27	910719-910725

9110 (EM)		
Part 1	Aug 3	910726-910801
Part 2	Aug 10	910802-910808
Part 3	Aug 17	910809-910815
Part 4	Aug 24	910816-910822
Part 5	Aug 31	910823-910829

9111 (EM)		
Part 1	Sep 7	910830-910905
Part 2	Sep 14	910906-910912
Part 3	Sep 21	910913-910919
Part 4	Sep 28	910920-910926

9112 (EM)		
Part 1	Oct 5	910927-911003
Part 2	Oct 12	911004-911010
Part 3	Oct 19	911011-911017
Part 4	Oct 26	911018-911024

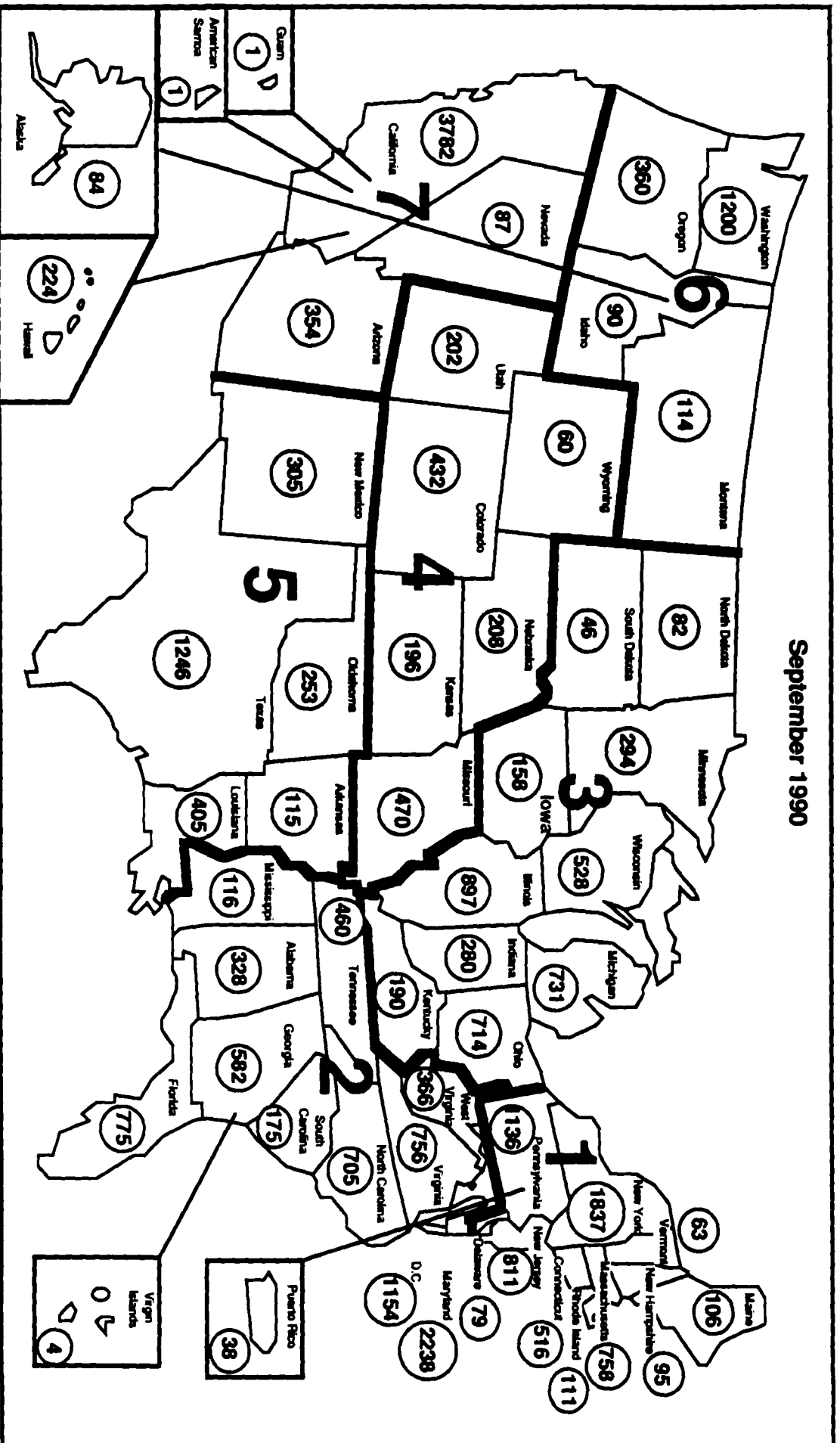
\* Modified because of holiday

Search hint: If a patron wants weekly updates to a search then use the pattern shown below, where SS 1 represents your completed search strategy.

On August 6	- SS 1:	. . .	AND 9110 (EM)
On August 13	- SS 1:	. . .	AND 9110 (EM) AND FROM 910802 TO 910808 (DA)
On August 20	- SS 1:	. . .	AND 9110 (EM) AND FROM 910809 TO 910815 (DA)
On August 27	- SS 1:	. . .	AND 9110 (EM) AND FROM 910816 TO 910822 (DA)
On September 3	- SS 1:	. . .	AND 9110 (EM) AND FROM 910823 TO 910829 (DA)

# National Library of Medicine Online Codes in the United States

September 1990



**Online Centers by Region:**  
 Region 1 - 5,550    Region 2 - 7,659    Region 3 - 3,920    Region 4 - 1,568  
 Region 5 - 2,324    Region 6 - 1,848    Region 7 - 4,449    TOTAL - 27,318



**SECOND NOTICE - LAST CHANCE TO AVOID DISRUPTION OF SERVICE!****NLM Technical Bulletin Mailing List: Update/Purge**

If you wish to continue receiving the NLM Technical Bulletin, we must receive this notification from you by January 15, 1991. If we do not hear from you, you will be automatically removed from the mailing list and in 1991 you will receive only the publication Gratefully Yours. The NLM Technical Bulletin will continue to be the major vehicle for introducing new databases and changes to existing databases to command language searchers. We urge you to take the few minutes necessary to complete and return this form, if you wish to continue receiving this publication.

Please tape or paste your mailing label into the box and sign below.

Signature \_\_\_\_\_

If your name or address is different from the one shown on the mailing label please fill out the section below:

Name \_\_\_\_\_

User ID \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Fold this form in thirds, tape it closed, affix postage and mail promptly.

- - - - -  
**Affix  
proper  
postage**

**MEDLARS MANAGEMENT SECTION  
NATIONAL LIBRARY OF MEDICINE  
8600 ROCKVILLE PIKE  
BETHESDA, MD 20894**

- - - - -

**... seal with tape**



December 6, 1990

Dear Domestic MEDLARS User:

This is to notify you that on February 1, 1991, the pricing structure of CHEMLINE and the TOXLIT files (TOXLIT and TOXLIT65) will be modified in response to changes in the 1991 royalty rates charged by Chemical Abstracts Service (CAS), the supplier of proprietary data for these files. The new rates for these three files were only recently negotiated, and they supersede the rates published in the September - October NLM Technical Bulletin, which are scheduled to take effect February 1, 1991. The price changes scheduled for all other NLM files remain as published in that article.

To accommodate these changes, the NLM Online Pricing Algorithm has been updated in the Connect Charge, Search Statement Charge, and Citation Charge components for CHEMLINE, TOXLIT and TOXLIT65. This year, CAS has again lowered its Connect Charge royalty, and raised its Online Citation Charge and Search Statement Charge royalties. The latter serves as an estimate of the number of Search Terms used.

Please see Table I on the reverse side of this letter for the new NLM rates for the six components of the online algorithm for CHEMLINE, TOXLIT, and TOXLIT65. Additionally, note that offline page charges for these files also have been modified due to changes in royalty charges. The NLM portion of the total charge reflects the rates established for the February 1, 1991 MEDLARS Pricing Structure.

Sincerely yours,

Lois Ann Colaianni  
Associate Director  
Library Operations

Henry M. Kissman, Ph.D.  
Associate Director  
Specialized Information Services

(over)

**NLM TECHNICAL BULLETIN NOVEMBER-DECEMBER 1990**

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TABLE I

New NLM Rates for CHEMLINE, TOXLIT, TOXLIT65

EFFECTIVE February, 1991

NLM ONLINE PRICING ALGORITHM CHARGES TO DOMESTIC USERS 1/

Files	Connect Charge (Per Hour)		Search Statement Charge	Online Citation Charge		Interaction Charge (Carriage Returns)	Computer Resources (Disk Accesses) (Per 100)	Online Character Charge (Per 1,000)		
	Non-Prime	Prime		Non-Prime	Prime		Non-Prime	Prime	Non-Prime	Prime
CHEMLINE	\$33.10*	\$35.85*	\$0.62*	\$0.54*	\$0.55*	\$0.01	\$0.07	\$0.14	\$0.08	\$0.12
TOXLIT & TOXLIT65	\$33.10**	\$35.85**	\$0.75**	\$0.54**	\$0.55**	\$0.01	\$0.07	\$0.14	\$0.08	\$0.12

\* Includes royalties of \$27.00 per Connect Charge, \$0.60 per Search Statement, \$0.53 Per Online Citation Charge

\*\* Includes royalties of \$27.00 per Connect Charge, \$0.73 per Search Statement, \$0.53 Per Online Citation Charge

NLM OFFLINE CHARGES TO DOMESTIC USERS 1/

Per Page

CHEMLINE                   \$1.53   (includes \$1.23 royalty charge)

TOXLIT & TOXLIT65       \$1.53   (includes \$1.23 royalty charge)

AUTOMATIC SDI SEARCHES

Per Search

TOXLIT                   \$6.70   Per search (plus page charges;  
includes \$5.20 royalty charge)

Current online prime time is 10:00 AM to 5:00 PM Eastern Time, Monday through Friday.  
All other time is non-prime.

1/ Non-U.S. online users incur charges under the online pricing algorithm and are charged \$3.00 extra on the connect portion (per hour), and \$0.10 extra per offline printed page.



# THE NLM

**\*\*Technical Bulletin News\*\*  
Mailing List Update - Appendix K**

ISSN 0146-3055  
SEPTEMBER - OCTOBER 1990  
No. 258 256

# Technical Bulletin

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Appendix D: MeSH Pre-explosions 1991  
Appendix E: Subheading Pre-explosions 1991  
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Appendix H: Pricing Schedule Changes  
Appendix I: CD Rom Licensee Fees  
Appendix J: 1991 Holiday Schedule  
Appendix K: **\*\*Technical Bulletin Mailing List\*\***

Enclosures: GRATEFUL MED Pocket Card  
Bioethics Flyer

## Regular Features:

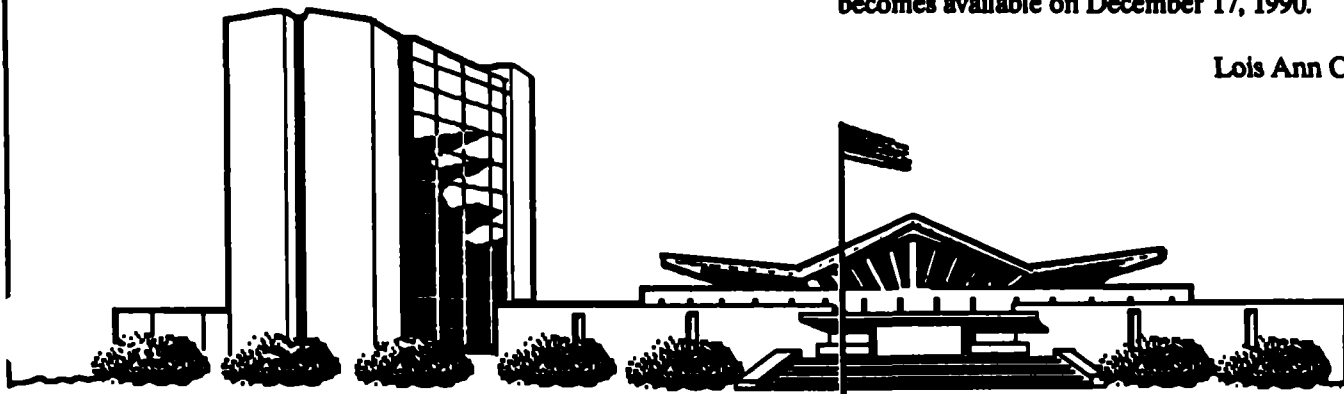
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[Editor's Note: This issue of the Technical Bulletin contains information about new features expected for the 1991 system. New ELHILL search enhancements are introduced and there is an expanded Technical Notes section, as well as a separate article concentrating on topics related to Year-End Processing. Year-End Processing involves large-scale maintenance of MEDLINE, the MEDLINE Backfiles, HEALTH, CANCERLIT, and other databases, primarily to reflect changes in the MeSH vocabulary. Update schedules for many of the databases are listed in Appendices A-C.]

## ELHILL® Enhancements

The National Library of Medicine has added several new features to make the retrieval of data from the ELHILL databases in 1991 easier and more efficient. New search capabilities include Title Field Text Word searching (page 26) and Text Word searching of the Address field (page 27). There are two new pre-explosions: ADULT and CHILD. These will permit retrieval on all age groups subsumed under each of these terms in one step. Subheading pre-explosions have been created (page 17). Two new fields: Publication Type (PT) (page 21) and Gene Symbol (GS) have been created (page 31). These are just the highlights of the new features. Searchers are urged to read the documentation carefully and then try the new capabilities in their searches, after the 1991 system becomes available on December 17, 1990.

Lois Ann Colaianni



**NLM TECHNICAL BULLETIN SEPTEMBER-OCTOBER 1990**

MEDLARS DATABASE	TOTAL RECORDS	DATES COVERED	DATE LAST UPDATED	LATEST UPDATE TAG
<b>ELHILL<sup>®</sup> COMPUTER</b>				
AIDSDRUGS	93		08 SEP 90	
AIDSLINE** <sup>™</sup>	40,438	JAN 80-NOV 90	29 SEP 90	9011(EM)
AIDSTRIALS	276		02 OCT 90	
AVLINE <sup>®</sup>	21,117	THROUGH 1990	05 OCT 90	
BIOETHICS <sup>®</sup>	30,902	JAN 73-SEP 90	06 OCT 90	9010(EM)
CANCERLIT <sup>®</sup>	762,628	JAN 63-OCT 90	06 OCT 90	9010(EM)
CATLINE <sup>®</sup>	669,031	THROUGH 1990	05 OCT 90	
CHEMID	183,665		28 JUL 90	
CHEMLINE <sup>®</sup>	997,161		26 SEP 90	9009(EM)
CLINPROT <sup>®</sup>	7,918		19 SEP 90	9009(EM)
DENTALPROJ	784		28 FEB 90	
DIRLINE <sup>®</sup>	17,574		28 JUL 90	
DOCUSER <sup>®</sup>	12,264		29 SEP 90	
HEALTH	522,829	JAN 75-NOV 90	11 OCT 90	9011(EM)
HISTLINE <sup>®</sup>	95,336		06 OCT 90	9010(EM)
MEDLINE* <sup>®</sup>	899,239	JAN 88-DEC 90	06 OCT 90	9012(EM)
MED86	651,840	JAN 86-DEC 87	25 AUG 90	
MED83	890,553	JAN 83-DEC 85	16 JUN 90	
MED80	803,364	JAN 80-DEC 82	25 AUG 90	
MED77	775,781	JAN 77-DEC 79	09 DEC 89	
MED72	1,175,516	JAN 72-DEC 76	09 JUN 90	
MED66	1,310,458	JAN 66-DEC 71	02 JUN 90	
MESH VOC <sup>®</sup>	74,015	1990	06 OCT 90	
NAME AUTH <sup>®</sup>	351,495		29 SEP 90	
PDQ <sup>®</sup>		THRU OCT 90	01 OCT 90	
POPLINE <sup>™</sup>	178,211	1970-OCT 90	06 OCT 90	9010(EM)
SDILINE <sup>®</sup>	36,583	NOV 90	29 SEP 90	9011(EM)
SERLINE <sup>®</sup>	75,245	1990	10 SEP 90	
TOXLINE <sup>®</sup>	861,376	1981-1990	09 SEP 90	9009(EM)
TOXLINE65	707,374	PRE 1965-1980	31 MAR 90	
TOXLIT <sup>™</sup>	857,350	1981-1990	09 SEP 90	9009(EM)
TOXLIT65	586,405	1965-1980	01 SEP 87	

\*N.B. FILE IS UPDATED WEEKLY; THIS IS PART 1 OF 4.  
 \*\*N.B. FILE IS UPDATED WEEKLY; THIS IS PART 5 OF 6.

**TOXNET COMPUTER**

CCRIS	2,190		13 MAR 90
DART <sup>™</sup>	5,695		07 OCT 90
DBIR <sup>™</sup>	1,560		11 SEP 90
EMICBACK	71,871		08 JUL 90
ETICBACK	49,597		08 JUL 90
HSDB <sup>®</sup>	4,300		05 OCT 90
IRIS	419		07 SEP 90
RTECS <sup>®</sup>	105,817		16 AUG 90
TRI87	76,498		06 OCT 90
TRI88	80,027		06 OCT 90

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(800) 638-8480	Bethesda, Maryland 20894

The NLM Technical Bulletin is an administrative document sent to formal members of NLM's MEDLARS Online Network.

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## Technical Notes

Whenever applicable, the heading of each Technical Note includes a reference to the section of the Online Services Reference Manual, 1988 that is considered most relevant to the item being discussed, e.g., (Manual 4.7.2). User should keep in mind that the item may pertain to other sections as well.

### VETERANS DAY HOLIDAY SCHEDULE SUNDAY, NOVEMBER 11 (ACTUAL HOLIDAY)

System	Rates/Status
ELHILL	non-prime non-guaranteed
TOXNET	non-prime guaranteed
DOCLINE	not available

#### Service Desks

MMS	not staffed
DOCLINE	not staffed

### MONDAY, NOVEMBER 12, OBSERVED

System	Rates/Status
ELHILL	non-prime non-guaranteed
TOXNET	non-prime guaranteed
DOCLINE	not applicable non-guaranteed

#### Service Desks

MMS	not staffed
DOCLINE	not staffed

### THANKSGIVING HOLIDAY SCHEDULE THURSDAY, NOVEMBER 22, 1990

System	Rates/Status
ELHILL	non-prime non-guaranteed
TOXNET	non-prime guaranteed
DOCLINE	not available

#### Service Desks

MMS	not staffed
DOCLINE	not staffed

### YEAR-END PROCESSING DOWNTIME

[Editor's Note: The NLM computer will be unavailable on Saturday, December 15, 1990, and Sunday, December 16, 1990, in order to install the MEDLINE, SDILINE, BACKFILES, HEALTH, CANCERLIT, AVLINE and CATLINE databases that have been Class Maintained with the 1991 Medical Subject Headings. Please see the article on page 9 in this issue titled "Year-End Processing" for additional information about the changes to the 1991 databases.]

### SATURDAY, DECEMBER 15 & SUNDAY, DECEMBER 16

System	Rates/Status
ELHILL	not available
TOXNET	non-prime guaranteed
DOCLINE	not available

#### Service Desks

System	Rates/Status
MMS	not staffed
DOCLINE	not staffed

**AREA CODES NEEDED IN DC METRO AREA**

Reminder: Beginning October 1, persons in the local Washington D.C. metropolitan area will be required to include the area code (but not a "1") when dialing a local call that is outside their own area code. For example, if you are calling suburban Maryland from Washington, D.C., you will need to dial 301 (MD area code) first. If you are using a number in your own area code, it is not necessary to add the area code.

This has a direct effect on all telecommunications software (including GRATEFUL MED) because the various network and direct-dial numbers in this area for the NLM's MEDLARS computers are in either Virginia, Maryland, or the District of Columbia. Listed below are the local Washington, D.C. metropolitan area telephone numbers for the MEDLARS computers. Review the telephone numbers you are using either in your GRATEFUL MED SETUP, or in other telecommunications software and add the area code if necessary. If you are dialing a telephone number that has an area code different from your own, you will need to add the area code to your existing numbers beginning October 1.

GRATEFUL MED searchers should not use parentheses () or slashes (/) when entering the area code. For example, do not enter "301/" or "(301)". Rather, enter the area code in the following format: 301-xxx-xxxx or 301xxxxxx. If you need to dial a 9 or some other digit to get an outside line, be sure to enter the digit followed by a comma, prior to the network phone number. For example, 9,301-xxx-xxxx or 9,301xxxxxx. Note: This change affects callers only in the local Washington, D.C. metropolitan calling area (area codes 301, 202, 703).

<b>TYMNET</b>	703-691-8200 703-352-3136 301-869-2700	300/1200 Baud 2400 Baud 2400 Baud
<b>Telenet</b>	202-429-7800 202-429-7896 202-429-0956	300/1200 Baud 300/1200 Baud 2400 Baud
<b>Direct Dial</b>	301-480-3150  301-480-4360	300/1200 Baud, Bell 212A 2400 Baud
<b>INFONET</b>	301-937-0990 301-937-0880	300 Baud, Bell 113 1200 Baud, Vadic 3405

<b>INFONET</b> (cont.)	301-937-0530 301-937-0722	300/1200 Baud, Bell 212A 2400 Baud
<b>CompuServe</b>	703-352-7500  202-388-4280  301-559-0200  301-559-8000  703-591-0506 703-352-8750	300/1200 Baud, Bell 212A 300/1200 Baud, Bell 212A 300/1200 Baud, Bell 212A 300/1200 Baud, Bell 212A 2400 Baud 1200 Baud, Vadic 3405

**FEDRIP SUBFILE ADDED TO TOXLINE**

(Manual 12.5)

The September update of TOXLINE contains a new subfile, FEDRIP, which consists of reports on toxicology-related research submitted to the National Technical Information Service's (NTIS) Federal Research in Progress (FEDRIP) database. Public Health Service-supported research from FEDRIP was not included because it is already present in the CRISP subfile of TOXLINE. The reports that are in the FEDRIP subfile come to NTIS from various agencies in a variety of formats, so the data are not as consistent in format or as free from keying errors as might be desired. A reload of FEDRIP is expected with the 1991 TOXLINE regeneration. A more detailed description will appear in an upcoming issue of the *Technical Bulletin*.

**PASSWORD SECURITY**

Just a reminder that password security for your User ID code is your responsibility. You may modify your password as frequently as necessary to keep your code protected. If you are a command language searcher, see the article on page 16 of the March 1990 *Technical Bulletin* for the simple instructions on how to modify your password. If you are a GRATEFUL MED searcher, check the GRATEFUL MED Bulletin Board for instructions on how to modify your password. You are responsible for charges generated against your User ID code/password, so please take the proper steps to protect your code from unauthorized use.

## AZT, A NEW ENTRY VERSION

AZT is a new entry version, or short form, for the MeSH Heading ZIDOVUDINE. You may use AZT in place of ZIDOVUDINE to search for articles indexed to the MeSH Heading ZIDOVUDINE. The NLM computer maps entry terms and entry versions to the MeSH Heading and actually searches on the MeSH Heading. As shown in the example below, either ZIDOVUDINE or the entry version AZT retrieves the same records. AZT (Antiviral), Azidothymidine, and several other terms listed in the online MeSH Vocabulary File continue to be entry terms for ZIDOVUDINE.

```
SS 1 /C?
USER:
zidovudine
PROG:
SS (1) PSTG (698)
```

```
SS 2 /C?
USER:
azt
PROG:
SS (2) PSTG (698)
```

## ERRATUM

In the article entitled "NLM Online Users' Meeting - MLA 1990: NLM Remarks", in the July-August 1990 *Technical Bulletin* on page 10, it was incorrectly stated that "Recently, EMIC was superseded by DART...". EMIC was not superseded by DART. DART is a continuation of the ETICBACK (Environmental Teratology Information Center Backfile) database. ETICBACK covers the literature published from pre-1950-1989 and DART covers the literature published since 1989.

EMICBACK covers literature on agents that have been tested for genotoxic activity from pre-1950-1990. A new database, simply called EMIC, will become available later this year and will cover references to literature published since 1990.

## NEW ONLINE EXPLAIN

(Manual 4.9.7)

A new online EXPLAIN is available which describes how to sort and combine search results online on the ELHILL system. Entering any of the following commands will result in identical text: EXPLAIN SORT, EXPLAIN SORTING, EXPLAIN COMBINE, EXPLAIN COMBINING, EXPLAIN COMB, or EXPLAIN COMBINED. The capability to sort and combine online search results became available in November 1989 and was described in the October 1989 and February 1990 issues of the *Technical Bulletin*.

## NEW TOXNET FEATURES

Two new features are available in TOXNET searching:

1. The EXPLAIN CONTINUOUS option allows users to view lengthy EXPLAIN text in TOXNET without being interrupted by the CONTINUE PRINTING? prompt. For example, to display without interruption an explanation of the RDO field in the IRIS database, enter EXPLAIN RDO CONTINUOUS. The abbreviation EX CONT may also be used, for example, EX RDO CONT or EX NAME CONT.
2. A COMMENT can now be cancelled while in the middle of typing it, by entering CANCEL at the start of a new line.

## PRE-EXPLOSIONS

(Manual 4.7.2)

A list of available pre-explosions for 1991 is in Appendix D this issue. The list is printed on one side so it can be removed from this issue and posted near the searcher's computer. Pre-exploded terms are indicated by a black dot (●) next to the heading in the body of the 1991 Annotated MeSH and the Tree Structures. There are

two new MeSH heading pre-explosions for 1991: ADULT and CHILD. These will permit retrieval in one step of all age groups that are indented under each of these terms. In addition, a new feature for 1991 is subheading pre-explosions. The article on page 17 of this issue contains a complete description of these new changes. A listing of subheading pre-explosions is in Appendix E.

Suggestions for new MeSH Heading and subheading pre-explosions are being taken now for 1992. Please remember that a MeSH Heading pre-explosion is based on the MeSH Tree Structure; all terms must have the same root number in order to be part of a pre-explosion. MeSH Headings that are logically related but do not share a common MeSH root number cannot be exploded or pre-exploded. Please send pre-explosion suggestions by March 1, 1991 to:

MEDLARS Management Section  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894

#### NEW PDQ USER GUIDE

(Manual 15+)

Attention PDQ Users!!! The new PDQ User Guide for the NLM system is now available. The manual has been completely updated and comes in an attractive 3-ring binder. The PDQ ACCESS software (for IBM PC's), which simplifies log-in procedures and features automated searching of CANCERLIT, is also included with the manual. The PDQ User Guide may be ordered from the National Technical Information Service (NTIS) (The order number is PB90-214909). The U.S./Canada/Mexico price is \$34.95 per copy with a shipping fee of \$3.00 per order. The non-U.S. price is \$69.90 with a handling fee of \$4.00 per order. A billing fee of \$7.50 is also added if a purchase order is used; countries other than the U.S., Canada, and Mexico must include payment at the time of ordering. Please send purchase orders or remittance with orders to:

National Technical Information Service (NTIS)  
5285 Port Royal Road  
Springfield, VA 22161  
(703) 487-4650 (for telephone orders with deposit account or credit card.)

#### 1990 BIOETHICS THESAURUS AVAILABLE

(Manual 21+)

The 1990 edition of the Bioethics Thesaurus, the controlled vocabulary of keywords used for indexing and searching BIOETHICSLINE, is now available. Terms from this thesaurus are searchable in the Keyword (KW) field of the online database. It can be purchased for \$5.00 (prepaid, checks made out to the Kennedy Institute of Ethics) from:

BIOETHICS Information Retrieval Project  
Kennedy Institute of Ethics  
Georgetown University  
Washington, DC 20057  
Telephone: (202) 687-6738 or (800) MED-ETHX

#### FREE PUBLICATIONS FROM THE NCI

The following free publications are available from the National Cancer Institute.

1. RECENT REVIEWS Diagnosis and Therapy, 1989. A fully indexed and categorized convenient reference to abstracts of review articles on all clinical cancer topics. Please request a single complimentary copy by writing to: RR, National Cancer Institute, Bldg. 82, Rm. 123, Bethesda, MD 20892.
2. NCI MONOGRAPHS Number 9. Consensus Development Conference on the Oral Complications of Cancer Therapies: Diagnosis, Prevention, and Treatment. Please request a single complimentary copy by writing to: NIDR, P.O. Box 54793, Washington, DC 20032.

If you want to be on a mailing list to receive notification of new releases of NCI's free publications, use the form found on Appendix G.

#### PRINTING ERROR IN INDEX MEDICUS, JULY 1990

Page 920 from the Subject Section of the July 1990 issue of Index Medicus was an inadvertent reprint of page 920 from the May 1990 issue's Subject Section. The correct

page 920 for the July issue has been printed and bound before the title page in the September 1990 issue of Index Medicus, so that subscribers may remove it and insert it into the July 1990 issue.

**MESH ERRATUM**

The subheading Ultrastructure, /UL, was inadvertently omitted from the Enzymes List on page I-112 of the 1991 Annotated MeSH. Searchers should add UL /ultrastruct to the Enzymes List in the Topical Subheadings by Allowable Category and are reminded that they may use the subheading /UL to search for the ultrastructural aspects of enzymes.

**ANNOTATED MESH ADDENDA**

In the 1991 Annotated MeSH on page I-61, two new MeSH headings - HELICOBACTER PYLORI and HELICOBACTER INFECTIONS appear. These headings do not appear in the body of the Annotated MeSH but are available for indexing, cataloging, and searching in NLM databases. Searchers may wish to add these two headings to page 393 in their own copies of Annotated MeSH.

**MESH TREES Structures, 1991**

The printer failed to print page 37, the first page of category of All, in the 1991 MeSH Trees. Orders shipped before September 26, 1990 will receive a copy of the missing page 37 under separate cover. Orders shipped September 27, 1990 or later will have the missing page 37 tipped into the volume as the first page underneath the front cover of the volume.

**CLINPROT INDEX TERM LISTING**

The CLINPROT Index Term listing for October 1990 is

now available. It may be requested by writing to the National Cancer Institute. Please include a self-addressed label with your request. No return postage is necessary. Please send requests to:

International Cancer Research Data Bank Branch  
National Cancer Institute  
R.A. Bloch Building (82), Room 103  
Bethesda, MD 20892

**PRICING SCHEDULE**

Effective February 1, 1991 there will be pricing changes for the MEDLARS databases. The official letter of notification for these pricing changes is included as Appendix H and the new pricing algorithm chart is shown on the verso.

**CD-ROM PRICE CHANGES**

The National Library of Medicine has recently announced a new fee schedule for CD-ROM products containing MEDLARS data. Appendix I is an explanation of this new fee schedule.

**GRATEFUL MED POCKET CARD ENCLOSED**

Enclosed with this issue you'll find the revised GRATEFUL MED pocket card for the IBM Version 5.0. It can be folded into thirds and should be kept in a handy spot near your GRATEFUL MED computer.

**DATABASE UPDATE SCHEDULE**

The database update schedules are published in Appendices A, B, and C. These lists may be removed from this issue and posted near the searcher's computer.

#### NEW SUPPLEMENT TO MMWR

A new supplement to MMWR. Morbidity and Mortality Weekly Report, called MMWR Recommendations and Reports, began publication on January 26, 1990. NLM will not catalog this supplement as a separate title. It will be indexed and cited in MEDLINE under the Title Abbreviation (TA) MMWR and Journal Code (JC) NE8, and issue numbers will be designated as RR-X, with X being the report number.

#### HOLIDAY SCHEDULE 1991

Appendix J is the NLM computer holiday schedule for 1991. The list is printed on one side so it may be removed easily from the issue and posted near the searcher's computer.

#### NTIS DEPOSIT ACCOUNTS

The National Technical Information Service (NTIS) has recently notified NLM that the minimum amount to open a deposit account is now \$100.00. Please inform the appropriate office in your institution of this change. If you have any questions, please call the NTIS toll-free billing number: 1-800-423-9255.

#### CHANGE IN TECHNICAL BULLETIN MAILING LIST

If you wish to continue receiving the *Technical Bulletin*, please fill out the form in Appendix K. If we do not receive this from you by January 15, 1991, you will be removed from the mailing list and in 1991 you will receive only the publication *Gratefully Yours*. The *Technical Bulletin* will continue to be the major vehicle for introducing new databases and changes to existing databases to command language searchers. We urge to take the few minutes necessary to complete and return this form, if you wish to continue receiving this publication.



# YEAR-END PROCESSING

## INTRODUCTION

Each year in the late summer and during the fall, staff of NLM's Office of Computer and Communications Systems and the MEDLARS Management Section perform substantial work making changes to MEDLINE, its BACKFILES, and other databases to reflect changes in the Medical Subject Headings (MeSH) vocabulary. This internal work, called "Year-End Processing," largely goes unnoticed as it proceeds but is apparent each year when the databases that use MeSH appear as "class-maintained" thus reflecting the dynamic nature of MeSH as well as the vocabulary of medicine. NLM also makes other changes as required to database records. Information for searchers on important dates as the operational MeSH vocabulary used for indexing and searching is changed to reflect 1991 MeSH is included in this article. Some searchers will have to make changes to some of their stored searches used for current awareness retrieval in NLM's Automatic SDI program. Generally, GRATEFUL MED users do not have to take any direct actions and may be assured that the annual changes to the vocabulary and other changes made to NLM databases should only facilitate search retrieval.

## MEDLINE BACKFILE CONFIGURATION-1991

During Year-End Processing in mid-December, the 1988 citations will be moved from the MEDLINE file into the MED86 file. Also, at the same time, other older references indexed during 1990 (because these earlier journals were received during 1990) are pulled from MEDLINE and placed in the appropriate BACKFILES. There will be no change in the names of the MEDLINE BACKFILES, only in their coverage. The primary dates of coverage for MEDLINE and its BACKFILES for 1991 will be as follows:

File	Aliases	Coverage
MEDLINE	MED	1989-1991
MED86	M86, BACK86, B86	1986-1988
MED83	M83, BACK83, B83	1983-1985
MED80	M80, BACK80, B80	1980-1982
MED77	M77, BACK77, B77	1977-1979
MED72	M72, BACK72, B72	1972-1976
MED66	M66, BACK66, B66	1966-1971

## 1991 MESH

The 1991 MEDLINE and HEALTH files are expected to be available online with January 1991, 9101 Entry Month (EM) data on Monday, December 17, 1990. The CANCERLIT December 1990, 9012 (EM) update will be available online on December 17, 1990 with 1991 MeSH vocabulary. CATLINE and AVLINE are also expected to be updated with 1991 vocabulary on December 17, 1990. At that time, all searches using MeSH should conform to any changes introduced with the Medical Subject Headings, 1991. AIDSLINE is expected to be updated with 1991 vocabulary sometime after December 26, 1990. Other files using MeSH vocabulary (i.e., BIOETHICS, POPLINE, TOXLINE, DENTALPROJ, and AIDSTRIALS) will be maintained for 1991 vocabulary at later dates. Watch future issues of the *Technical Bulletin* and the online NEWS for announcements.

Changes to the MeSH vocabulary for 1991 are reflected in the various lists contained in the introduction to the Medical Subject Headings--Annotated Alphabetic List, 1991. This publication is available from the National Technical Information Service (NTIS); ordering information was provided in the July-August 1990 *Technical Bulletin*.

Current GRATEFUL MED Version 5.0 (IBM) users will receive 1991 MeSH disks, as part of the Version 5.0 update to be mailed in December 1990. In December, new purchasers of GRATEFUL MED for the IBM will receive 1991 MeSH disks along with their GRATEFUL MED Version 5.0 software. GRATEFUL MED Version 6.0 (IBM) is scheduled for release during the first half of 1991. Macintosh users of GRATEFUL MED will receive Version 1.5 with the 1991 MeSH in Spring 1991.

## STORESEARCHES, AUTOMATIC SDIS, AND SAVED SEARCHES

All stored searches (including Automatic SDI stored searches) and saved searches for the ELHILL databases should be reviewed. Searchers should review these searches for the impact of any changed and new 1991 MeSH headings, the new Publication Type (PT) field and Subheading Pre-explosions (see pages 14-18 and 21-24 in this issue). The Year-End Processing schedule including dates for processing the Automatic SDI's is found on page 12-13 of this issue.

**SDILINE AUTOMATIC SDI SEARCHES - MEDLINE DATABASE**

SDILINE Automatic SDI stored searches requiring revision due to 1991 MeSH vocabulary changes must be deleted and restored by Thursday, December 6, 1990, in order to receive correct retrieval against 1991 monthly updates. The January 9101 (EM) SDILINE SDIs will be processed beginning on or about Friday, December 7, 1990. Searchers should execute their STORESEARCHes themselves online between November 19, 1990, and December 6, 1990, to examine retrieval. During this time, the December 1990 SDILINE file will contain 1991 MeSH terms so searchers can run their STORESEARCHes against this revised SDILINE to check correct operation of stored strategies against the new vocabulary. Only SDILINE will have 1991 vocabulary terms on citations during this time period; MEDLINE and other databases will not.

In order to check correct operation of stored searches during this designated period, searchers should:

1. First, record the number of citations retrieved for each stored search as processed by NLM in the Automatic SDI Program for the December 1990 SDILINE (available October 27) with the 1990 vocabulary. (The number of citations retrieved is listed on the front of each SDI printout received. The name of the stored search is the title of the printout.)
2. Beginning November 19, searchers should go online and run each SDILINE stored search against the December SDILINE, which will contain the same number of citations but will then instead reflect 1991 MeSH vocabulary. (Stored searches may be executed by typing the stored search name online qualified by (SN). Be sure you are connected to SDILINE.)
3. Compare the postings retrieved with the records found earlier. If the number of citations (i.e., postings) retrieved is not equal to the number received in the December 1990 SDILINE printouts with 1990 vocabulary, searchers may assume the stored search has been affected by a 1991 vocabulary change.
4. Searchers should then display the strategy. Use the command DISPLAY with the stored search

name. Do not use the (SN) qualifier. For example: DISPLAY S601 HEART DISEASE.

5. Check the terms in your strategy against the various lists of new and replaced MeSH headings which are contained in the introductory section of the Medical Subject Headings - Annotated Alphabetic List, 1991. Three of the four lists of new headings ("New Medical Subject Headings with Scope Notes", "New Medical Subject Headings by Subcategory", and "New Medical Subject Headings with Previous Indexing") contain only those headings that were not in the 1990 MeSH. They do not include new forms of existing headings; these appear in the list titled, "Replaced Medical Subject Headings with Replaced-By Headings".

On the list titled "Replaced Medical Subject Headings with Replaced-By Headings - 1991", terms designated as P (Print Entry Term) or N (Non-Print Entry Term) may still be used as search terms and remain in any stored/saved search. Terms designated as C (Supplementary Chemical Term) may remain but must be qualified with (NM). Terms designated as T (Publication Type) may remain but should be qualified with (PT); if they are qualified by (MH) all will not post except for REVIEW. Those terms with no status indicator may not be used as search terms and must be deleted from all stored and/or saved searches.

Tree numbers should be checked in the 1991 MeSH Tree Structures. CAS Registry Numbers and Names of Substances (NM) should be checked in the online NEW MESH database (type FILE NEW MESH). If the strategies are not too long, searchers may want to type them in line-by-line and evaluate any No Postings messages to isolate the problem area.

5. Purge searches requiring changes (PURGESEARCH searchname). For example, PURGESEARCH S601 HEART DISEASE. Then store the revised strategy (STORESEARCH). For example, STORESEARCH S601 HEART DISEASE. If you purge and store on the same day, be sure to make the searchname of the new search different. Varying the name of the search by one character from the old name is sufficient to make the new name unique.

6. All revised SDILINE search strategies for Automatic SDILINE processing should be stored by December 6, 1990.

**BILLING FOR AUTOMATIC SDIs ON SDILINE NOVEMBER/DECEMBER 1990.**

Because of the two updates of SDILINE in the month of December 1990 (9101 (EM) and 9102 (EM)), participants in the Automatic SDI current awareness program should expect to see charges for two sets of SDILINE Automatic SDIs on their December invoices. However, no SDILINE Automatic SDIs will be run in November 1990. Therefore, participants in the Automatic SDI program should expect to see no charges for SDILINE Automatic SDIs on their November invoices.

**OTHER DATABASES WITH SDI SERVICE**

Other files which have Automatic SDI service are HEALTH, CANCERLIT, CATLINE, AVLINE, AIDSLINE, POPLINE, and TOXLINE. These do not have an equivalent of SDILINE; therefore, it is not possible to follow the procedures described above for the SDILINE database. You should carefully review any strategies you may have stored for execution by NLM against these databases for possible vocabulary revisions and restore by the dates listed below.

**HEALTH and CANCERLIT SDIs**

The HEALTH and CANCERLIT databases are also expected to be updated with 1991 vocabulary on December 17, 1990. Review and restore any affected searches by December 13. The HEALTH update expected on December 17 is 9101 (EM); the CANCERLIT update is 9012 (EM). Both of these updates will use 1991 MeSH vocabulary. NLM plans to run these Automatic SDIs during the week of December 17.

**AIDSLINE SDIs**

AIDSLINE is expected to be updated with 1991 vocabulary sometime after December 26, 1990. Changes for Automatic SDIs run against AIDSLINE should be made no later than December 13, 1990.

**CATLINE AND AVLINE AUTOMATIC SDIs**

The CATLINE and AVLINE databases are also expected to be updated with 1991 vocabulary on December 17, 1990. Changes for Automatic SDIs run against these databases should be made no later than December 27, 1990.

**POPLINE SDIs**

POPLINE SDIs should not be changed yet. Please see future issues of the *Technical Bulletin* and the online NEWS for announcements about the 1991 vocabulary.

**TOXLINE SDIs**

TOXLINE contains MeSH vocabulary on the TOXBIB and BIOSIS subfiles. Stored search strategies for TOXLINE that contain MeSH headings should be reviewed for 1991 MeSH vocabulary changes. Any changes to these strategies should be reviewed and restored by December 18, 1990. Beginning with the TOXLINE update in December (9012 (EM)), records added to both the TOXBIB and the BIOSIS subfiles will contain 1991 MeSH. 1990 MeSH terms will remain on TOXBIB and BIOSIS records from earlier entry months until the entire TOXLINE file is regenerated sometime in February or March 1991. Watch the online ELHILL news and the *Technical Bulletin* for the date of the regeneration.

YEAR-END PROCESSING SCHEDULE

- October 27, 1990:** December 1990 MEDLINE/SDILINE 9012 (EM) with 1990 MeSH vocabulary available online.
- November 17-18, 1990:** SDILINE unavailable in order to implement this database with 1991 vocabulary.
- November 19, 1990:** December 1990 SDILINE with 1991 MeSH terms available online. STORESEARCHes should be executed online. December SDILINE available through December 14, 1990, but all stored searches used for Automatic SDIs against SDILINE with any necessary changes should be corrected and restored for processing by NLM by December 6.
- December 7, 1990:** SDILINE Automatic SDIs will be processed by NLM against January 1991 (9101 (EM)) data beginning on or about this date.
- December 13, 1990:** HEALTH, CANCERLIT, and AIDSLINE Automatic SDIs with any identified changes should be corrected and restored by this date.
- December 15-16, 1990:** The NLM computer will be unavailable for searching over this weekend so that the 1991 MEDLINE/SDILINE/HEALTH/CANCERLIT databases and MEDLINE BACKFILES may be installed. PDQ and DOCLINE will also be down. (The TOXNET computer is unaffected.)  
 Note: If the installation of the 1991 databases proceeds smoothly, it is possible that the computer will be brought back online early, that is, on either December 15 or 16, with the 1991 databases ready for searching. These dates are provided as guidelines so searching schedules may be planned.
- December 17, 1990:** Class Maintained 9101 (EM) MEDLINE/HEALTH databases available online with January 1991 updates. 9101 (EM) SDILINE available online. The CANCERLIT database Class-Maintained and updated through 9012 (EM) should also be available online on this date. These databases and the MEDLINE BACKFILES should then be searched using the 1991 MeSH vocabulary.
- December 17, 1990:** HEALTH Automatic SDIs will be processed by NLM against January 1991 (9101 (EM)) data beginning on this date, followed by

CANCERLIT Automatic SDI processing against  
December 1990 update data.

- December 18, 1990:** TOXLINE Automatic SDIs with any identified changes should be corrected and restored by this date. The 9012 (EM) TOXLINE/TOXLIT Automatic SDIs are expected to be processed on December 20, 1990.
- December 27, 1990:** The CATLINE and AVLINE Automatic SDIs will be processed for the first time using 1991 vocabulary the first week in January. Please purge and restore any strategies affected by 1991 MeSH changes by this date.
- December 28, 1990:** The SDILINE 9102 (EM) Automatic SDIs will be processed. AIDSLINE Automatic SDI's with 9001 (EM) will be processed during this week.

## Coming Attractions - MeSH

### INTRODUCTION

The next 3 articles describe the new features that will be implemented for the MEDLINE databases with the mid-December Year-End Processing. A brief index to the new features follows:

Address Field Text Word Searchable	p.27
Comment Field Added to HEALTH file	p.33
Consider Also References	p.34
Gene Symbol Field	p.31
Minor Descriptors Discontinued	p.18
Minor Descriptors Upgraded	p.19
New MeSH Headings	p.14
New Subheadings	p.16
Pre-explosions	p.17
Publication Types	p.21
Text Word Searching Expanded	p.25
Title Abbreviation Changes	p.29
Title Field Text Word Searching	p.26
Transplantation Headings	p.29

### NEW MESH HEADINGS AND MODIFICATIONS FOR 1991

For 1991, 310 new major descriptors were added to MeSH and 133 descriptors were replaced with more up-to-date terminology. Some of these terms are listed in the following paragraphs. (Terms listed together without separating blank lines are related to each other.)

#### Lymphomas

The non-Hodgkin's lymphoma classification has been greatly expanded and reorganized for 1991. Each non-Hodgkin's lymphoma is classed both by grade and by histology. The terminology and classification are based on the recommendations put forth in the Working Formulation of the Non-Hodgkin's Lymphoma Pathologic Classification Project sponsored by the National Cancer Institute. As much as possible, earlier MeSH terminology has been retained as printed cross-references and entries have been added for terminology used in other lymphoma classifications, such as Kiel, Rappoport, and Lukes-Collins. The major divisions are as follows:

LYMPHOMA, HIGH-GRADE  
 LYMPHOMA, INTERMEDIATE-GRADE  
 LYMPHOMA, LOW-GRADE

The above are the 3 major prognostic groupings proposed by the Working Group for classifying non-Hodgkin's lymphomas.

LYMPHOMA, LARGE-CELL - often called "histiocytic"  
 LYMPHOMA, SMALL-CELL - often called "lymphocytic"  
 LYMPHOMA, MIXED-CELL - composed of both large and small cells

LYMPHOMA, B-CELL  
 LYMPHOMA, T-CELL

The headings above describe lymphomas expressing B- or T-cell antigens or manifesting malignant transformations of those cells.

LYMPHOMA, DIFFUSE - lymph node infiltration with no organized pattern  
 LYMPHOMA, FOLLICULAR - nodular clusters within lymph nodes

Beyond the reorganization, a total of 19 new non-Hodgkin's lymphoma headings were added and several existing terms were changed to reflect the preferred terminology.

#### AIDS terminology

MeSH continues to expand its AIDS-related terminology, this year adding four new disease headings, five virus terms, a new drug with potential use in AIDS therapy, and several terms related to biochemical and molecular biological processes in AIDS. Some of these headings are more indirectly AIDS-related, notably those associated with the AIDS-like infections in animals. The new terms are listed below:

#### AIDS-ASSOCIATED NEPHROPATHY

BOVINE IMMUNODEFICIENCY-LIKE VIRUS  
 FELINE IMMUNODEFICIENCY VIRUS  
 FELINE ACQUIRED IMMUNODEFICIENCY SYNDROME (x FAIDS)  
 MURINE ACQUIRED IMMUNODEFICIENCY SYNDROME (x MAIDS)  
 MASON-PFIZER MONKEY VIRUS  
 SIMIAN RETROVIRUS TYPE D  
 SIMIAN ACQUIRED IMMUNODEFICIENCY SYNDROME (x SAIDS)

N.B. The above group is only loosely associated with AIDS in that the viruses, which are not related to HIV, produce in their hosts acquired defects of cellular

immunity resembling to a greater or lesser degree the characteristics of AIDS in humans.

THYMOPENTIN

HIV PROTEASE  
NF-KAPPA B

TRANSCRIPTION FACTOR, SP1  
HIV ENHANCER  
HIV LONG TERMINAL REPEAT

GENES, PX  
GENES, RAP  
GENES, VIF  
GENES, VPU

GENE PRODUCTS, RAP  
GENE PRODUCTS, REX  
GENE PRODUCTS, TAX  
GENE PRODUCTS, VIF  
GENE PRODUCTS, VPU

#### Molecular Biology

In addition to the genes and gene products listed with the AIDS terminology above, headings associated with sequence elucidation, suppressor and proto-oncogenes, and various nucleic acids have been developed for 1991. Several are listed below:

ANTISENSE ELEMENTS (GENETICS)  
DNA, ANTISENSE  
OLIGONUCLEOTIDES, ANTISENSE  
RNA, ANTISENSE

DNA, PROTOZOAN  
RNA, PROTOZOAN

RNA, CATALYTIC (x RIBOZYME)

CHROMOSOME WALKING  
DNA FINGERPRINTING  
SEQUENCE ALIGNMENT

CONSENSUS SEQUENCE  
READING FRAMES  
OPEN READING FRAMES  
TATA BOX

LEUCINE ZIPPERS  
SEQUENCE TAGGED SITES  
ZINC FINGERS

FRAMESHIFT MUTATION  
MUTAGENESIS  
MUTAGENESIS, INSERTIONAL  
MUTAGENESIS, SITE-DIRECTED

GENES, SUPPRESSOR  
GENES, DCC  
GENES, P53  
GENES, RETINOBLASTOMA  
GENES, WILMS' TUMOR

(PROTO-ONCOGENES) [not new for 1991]

GENES, ABL  
GENES, FMS  
GENES, MOS  
GENES, MIC  
GENES, SRC

#### Library and Information Science

For the first time in many years, MeSH has been amplified to provide a group of terms related to library and information processing. New headings in this area are shown below:

COMPUTER PERIPHERALS  
COMPUTER TERMINALS  
COMPUTER STORAGE DEVICE  
OPTICAL STORAGE DEVICES  
COMPACT DISK  
CD-ROM

LIBRARY AUTOMATION  
LIBRARY COLLECTION DEVELOPMENT  
LIBRARIANS

CLINICAL PHARMACY INFORMATION  
SYSTEMS  
DATABASES, BIBLIOGRAPHIC  
DATABASES, FACTUAL  
INFORMATION STORAGE AND RETRIEVAL  
MEDICAL RECORDS SYSTEMS,  
COMPUTERIZED

MEDLARS  
MEDLINE  
GRATEFUL MED

#### Sociology and Bioethics

Finally, MeSH has also added a number of terms relating to sociological and bioethical issues related to the delivery of health care:

CHILD OF IMPAIRED PARENTS  
DENTAL CARE FOR AGED  
FRAIL ELDERLY

DRUG TREATMENT CENTERS  
GROUP HOMES  
WOMEN'S HEALTH

ADVANCE DIRECTIVES  
LIVING WILLS  
CONTACT TRACING  
REFUSAL TO TREAT  
RESUSCITATION ORDERS  
TREATMENT REFUSAL

CONFLICT OF INTEREST

ORGAN TRANSPLANTATION  
TISSUE TRANSPLANTATION  
BRAIN TISSUE TRANSPLANTATION  
FETAL TISSUE TRANSPLANTATION

NIH OFFICE OF SCIENTIFIC INTEGRITY

UNITED STATES AGENCY FOR HEALTH  
CARE POLICY AND RESEARCH (x AHCPR)

**NEW SUBHEADINGS FOR 1991**

In response to requests from indexers and searchers, three new subheadings have been added to MeSH for 1991: /chemistry, /contraindications, and /ultrasonography.

/chemistry /ch

This subheading is available for use with anatomical terms, chemicals and drugs, and various solid tumors. It is used to identify articles relating to the composition, structure, chemical characterization, and properties of drugs and chemicals, as well as the chemical composition or content of organs, tissues, bodily fluids, and tumors.

In previous years, the MeSH heading CHEMISTRY was coordinated with drugs and chemicals to indicate this type of information. But because greater precision and fewer false drops are always characteristic of MeSH heading/subheading combinations, it is preferable to provide this capability whenever possible. The philosophy is exactly analogous to that illustrated in the many already existing main heading-subheading duplicates, e.g., DRUG THERAPY and /drug therapy, PHYSIOLOGY and /physiology, RADIOGRAPHY

and /radiography. The MeSH heading is now reserved for general articles on the discipline, benefits, values, curricula, etc., while the subheading is applied to specific aspects of any given concept.

For the chemistry, chemical composition, or chemical content of anatomical components and tumors, /chemistry replaces /analysis, which is no longer permitted with these terms. (Remember, however, /analysis may be paired with these terms in constructing searches for pre-1991 data.)

Some examples of topics that would be retrieved with the subheading /chemistry are listed below with strategies for searching from 1991 forward and from 1990 backward:

The chemical composition of teratomas.

1991:  
TERATOMA/chemistry  
pre-1991:  
TERATOMA/analysis

The structure and properties of a new class of aminoglycoside antibiotics.

1991:  
ANTIBIOTICS, AMINOGLYCOSIDE/chemistry  
pre-1991:  
ANTIBIOTICS, AMINOGLYCOSIDE and  
CHEMISTRY

/contraindications ~~ter~~ *KT*

This subheading is used with drugs, chemicals, and various diagnostic, surgical, therapeutic, and other procedures to identify information relating to conditions when the use of the drugs or procedures is inadvisable, improper, or undesirable. It differs from /adverse effects in much the same way that /prevention & control differs from /therapeutic use: both are before the fact. That is, /prevention & control identifies articles on steps taken to prevent, for example, viral infections before they occur; /contraindications is used to warn of pre-existing conditions such as pregnancy before the drug is administered or the procedure is undertaken.

/ultrasonography ~~ter~~ *US*

The addition of this subheading rounds out the complement of available subheadings related to imaging, the two existing ones being /radiography and /radionuclide imaging. The new /ultrasonography is



used for the ultrasonic imaging of organs and body regions and for the ultrasonic diagnosis of diseases.

In a companion move, the MeSH heading **ULTRASONIC DIAGNOSIS** was changed to **ULTRASONOGRAPHY**; the former heading has been retained as a printed see reference. This provides yet another illustration of main heading-subheading duplication and will be treated in the same manner as all such pairs. Ultrasonographic aspects of organs and diseases requires the subheading; the discipline or instrumentation or new methods in ultrasonography requires the MeSH heading.

### PRE-EXPLOSIONS

Three major enhancements have been made to the pre-explosion search function for MeSH-based databases in 1991:

#### • New 1991 pre-explosions

Two new additions this year are **ADULT** and **CHILD**. These will permit retrieval on all age groups subsumed under each of these terms in one step. The **CHILD** pre-explosion will retrieve citations indexed with **INFANT**, **NEWBORN**; **INFANT**; **CHILD**, **PRESCHOOL**; **CHILD**; or **ADOLESCENCE**. Searchers take note: do not use the **CHILD** pre-explode if you don't want articles including the adolescent age group. Previously **ADOLESCENCE** was not included in this tree. If you want ages up to 18, then prefer **CHILD (PX)** as a more cost-effective and efficient searching technique. Do not **EXPLODE CHILD** any longer. If you need to restrict only up to age 12, limit your search by **ANDing** in the four appropriate age check tags:

**INFANT, NEWBORN**  
**INFANT**  
**CHILD, PRESCHOOL**  
**CHILD**

As a reminder, all of the child and infant terms in the **CHILD** tree take one or more of the above four check tags by definition. The only exception is **ONLY CHILD** which can describe articles where the age is not relevant. Therefore, searching by age group check tag is the most efficient and effective method to limit to specific age ranges. The **ADULT** pre-explosion will retrieve citations indexed to **ADULT**, **MIDDLE AGE**, or **AGED**.

#### • Pre-explosion of terms across all tree locations

In years past, only one tree number was used for the pre-explosion. With the advent of the "EXPLODE ALL" capability for regular explosions in 1990 (see the April 1990 *Technical Bulletin* for details), these programming changes were extended to include pre-explosions for 1991. Beginning with the new system in mid-December, if a pre-exploded concept exists in multiple trees, all locations in which indentions exist will be included in the pre-explosion.

#### • Subheading pre-explosions

A new feature for 1991 is the creation of subheading pre-explosions. They are created on the same philosophical basis as MeSH heading pre-explosions, that is, the gathering together of all specific elements of a concept under one umbrella. However, subheading pre-explosions differ in their manner of implementation under **ELHILL**. Although subheadings do not exist in formally numbered tree categories as do MeSH headings, an explode-like capability for certain subheadings was created by grouping "like" subheadings together. Please refer to Appendix E which shows the subheading groupings that have been created as pre-explosions along with their names. Any subheading that has indentions beneath it may be searched as a subheading pre-explosion, e.g., in the **pharmacology** array, both **pharmacology** and **adverse effects** may be pre-exploded. Not all subheadings are included in these groupings - some just do not fit.

#### Searching subheading pre-explosions on the NLM system

MeSH subheading pre-explosions may be used by entering either the full subheading or the two-letter mnemonic; in both cases, a trailing ampersand (&) must be appended as well as the qualifier (PX) to distinguish the pre-exploded subheading from an individual subheading. For 1991, pre-exploded subheadings may be combined with MeSH headings and pre-exploded MeSH headings only in a Boolean statement (sometimes referred to as "free-floating" subheadings):

**MELANOMA AND TH& (PX)**  
 or  
**MELANOMA AND THERAPY& (PX)**  
  
**CARDIOVASCULAR DISEASES (PX) AND DI& (PX)**  
 or  
**CARDIOVASCULAR DISEASES (PX) AND DIAGNOSIS& (PX)**

For example, the "treatment" types of subheadings have been grouped together so that you can type in:

SS 1 /C?  
 USER:  
 th& (px)  
 PROG:  
 SS (1) PSTG (8406)

and get retrieval consisting of all records indexed with any one or more of the subheadings in the group. This retrieval can then be used in combination with other retrieval.

SS 2 /C?  
 USER:  
 melanoma and 1  
 PROG:  
 SS (2) PSTG (53)

All melanoma records with any subheading in the TH& (PX) group have been retrieved.

**Pre-exploded Subheading Caveats**

Pre-exploded subheadings cannot be directly attached to a MeSH heading, i.e.,

MYOCARDIAL INFARCT/TH& is wrong.

You cannot put an \* in front of the subheading pre-explosion to limit to the subheading as the central concept.

You cannot use Subheading pre-explosions with the SUBS APPLY command.

Realize also that the retrieval for SUBS APPLY and subheading pre-explosions will differ as outlined below, even though the same subheadings are included in the search.

SS 1 /C?  
 USER:  
 subs apply th, dh, dt, nu, pc, rt, rh, su, tr  
  
 PROG:  
 SUBHEADINGS ACCEPTED.

SS 1 /C?  
 USER:  
 melanoma  
 PROG:  
 SS (1) PSTG (39)

SS 2 /C?  
 USER:  
 subs cancel

This strategy searches melanoma/th or melanoma/dt...etc. and the subheading is directly attached to the MeSH heading.

Whereas:

SS 1 /C?  
 USER:  
 th& (px) and melanoma  
 PROG:  
 SS (1) PSTG (53)

This second strategy actually searches for melanoma and th (sh) or melanoma and dt (sh)...etc. The subheadings may be present on any MeSH Heading on the record, not necessarily attached directly to melanoma.

**Finding Subheading Pre-explosions**

MeSH Heading pre-explosions are indicated with the symbol "0" in the Annotated MeSH and in the MeSH Tree Structures. Subheading pre-explosions are indicated with the symbol "▶" in the Annotated MeSH. They are not included in the Trees, because they have no tree numbers.

The complete list of 1991 MeSH heading pre-explosions and the hierarchical and alphabetic lists of 1991 subheading pre-explosions are printed as Appendices D and E of this issue of the *Technical Bulletin* and are listed on pages I-96 through I-98 of the 1991 Annotated Alphabetic List.

**MINOR DESCRIPTORS DISCONTINUED EFFECTIVE 1991**

[Editor's Note: Please read the following paragraphs carefully and note the specific meaning of minor descriptors in the context of the MEDLINE-related databases in the ELHILL system. Minor descriptor does not simply mean the unstarred MeSH heading, as it may in other retrieval systems.]

Minor descriptors, or see under headings, have existed in MeSH since 1963. They appeared in the Black and White (or Index Medicus) MeSH in small type as they did in both Index Medicus and Current Catalog. Because minor descriptors represented more specific subdivisions of a concept than was generally thought useful for looking up information in the hardcopy of

these products, users were instructed to "see under" the broader major descriptors to locate relevant citations.

When the ELHILL3 retrieval system came into existence in 1975, it became possible to provide greater depth and specificity in online searching and indexers were free to use minor descriptors (starred or unstarred) to describe the subject content of articles to be cited in MEDLINE. The ability to retrieve information more precisely became especially important not only because it was felt that users of the online system were more research oriented, but because several years of citations were available at one time in the database, with a concomitant expansion in the potential volume of retrieved data. The Annotated MeSH, which began in 1975 as well, therefore printed minor descriptors in the same large type as major descriptors in order to make it easier for users to identify their presence. Mapping programs automatically added the major descriptor to which the see under heading referred for printing citations in Index Medicus.

Through the years, however, the steady growth in the volume of literature covered for NLM publications and databases, as well as the increased depth of knowledge in many areas (e.g., molecular biology and immunology), made re-examination of this policy a necessity. In addition, catalogers have been required to supply the appropriate major descriptor whenever a minor descriptor has been used because the minor descriptors are stripped from the cataloging data for tape distribution.

In order to make more consistent the representation of material in all NLM products using MeSH for subject access and to provide for more meaningful division of the subject matter in these products, the designation and use of minor descriptors has been discontinued beginning in 1991. All existing minor descriptors have been converted to major descriptors and no new minor descriptors have been created. Appropriate History Notes (HN) have been supplied for the 3,281 elevated minor descriptors indicating the major descriptor(s) to which they have been mapped in earlier years.

Indexing and searching in MEDLINE and related databases are NOT affected by this change, but users of Index Medicus, Current Catalog, and CATLINE data distributed via tape to outside institutions will now be able to have access to the full array of MeSH headings

for subject description.

#### UPGRADING MINORS TO MAJORS IN CATLINE AND AVLINE

Minor descriptors have been used as subject headings in the bibliographic records added to CATLINE and AVLINE since 1979. These minor descriptors were used as non-print headings without any subheadings. The major descriptor to which a minor referred was also added to each record indexed with a minor, and the major descriptor appeared as the print heading with all appropriate subheadings in the NLM catalogs. The minor descriptors were searchable online in CATLINE and AVLINE but did not appear in subject tracings in the publications nor in the MARC-formatted records derived from NLM cataloging.

After full analysis of the cataloging records containing minor descriptors, the NLM Cataloging Section has determined that in upgrading the status of minor descriptors in CATLINE and AVLINE it will not be possible to replace the mapped-to major descriptor with its corresponding minor as was previously planned. Rather, all MeSH minor descriptors that were used in the cataloging records and that are elevated to major status in the 1991 MeSH vocabulary will be starred and upgraded to printing major descriptors in the December Year-End Processing for CATLINE and AVLINE. Both the original major and the upgraded minor will be retained as printing subject headings in any record that contained a minor descriptor.

When the minor descriptors used in CATLINE and AVLINE are elevated to major descriptors they will continue to appear in the records without any subheadings. To assist catalogers in identifying the CATLINE and AVLINE records affected by the change in the status of minor descriptors, these records will contain an occurrence of the Revision Indicator (RI) field with the value "Min:maj" See the example on the next page. The RI field is directly searchable and displays in the PRT DL and PRT CC formats.

Any minor descriptors that are changed to "see" references rather than being elevated to major descriptors will be deleted from the CATLINE and AVLINE records.

OLD RECORD - 1990

MH - Basilar Membrane (unstarred minor descriptor)  
MH - Diabetes Mellitus/\*PP/physiopathology  
MH - Diabetic Angiopathies/\*PP/physiopathology  
MH - Labyrinth/\*BS/\*PP/blood supply/physiopathology  
RI - rev

NEW RECORD - 1991

MH - \*Basilar Membrane (starred major descriptor)  
MH - Diabetes Mellitus/\*PP/physiopathology  
MH - Diabetic Angiopathies/\*PP/physiopathology  
MH - Labyrinth/\*BS/\*PP/blood supply/physiopathology  
RI - Min:maj

## Coming Attractions - Publication Types

MeSH descriptors are grouped into five classes: main headings - the "true" subject headings; geographical headings; check tags; and, until 1991, Citation Types. Effective in 1991, a new class of descriptor, the Publication Type (PT), has been instituted to expand on the concept of the former Citation Types (e.g., Historical Article). The Publication Types provide an additional means for classifying material indexed or cataloged in a variety of NLM databases. Rather than representing the subject content of an article or book as do MeSH subject headings, Publication Types characterize the nature of the information or the manner in which it is conveyed, e.g., letter, retracted publication, clinical conference, etc.

### Scope and Sources of Publication Types

Continuing the pattern of the older citation types, publication types are all created in the singular rather than the plural form. This serves also to distinguish them from main headings when a concept exists as both a main heading and a publication type. The publication types fall into five categories:

- 1) **former Citation Types** - CURRENT BIOG-OBIT, HISTORICAL ARTICLE, HISTORICAL BIOGRAPHY, and REVIEW all served a similar purpose in describing the nature of an indexed citation before the inception of publication types.
- 2) **rubrics** - members of this group were formerly identified only as rubricated notations appended to titles in indexed citations. They include letter, editorial, comment, news, etc. Beginning in 1991, citations will carry both the rubric and the separately indexed publication type.
- 3) **main heading equivalents or near-equivalents** - these include such designations as CLINICAL TRIAL, RETRACTION OF PUBLICATION, DUPLICATE PUBLICATION, and CONSENSUS DEVELOPMENT CONFERENCE. In these instances, the main heading is retained to describe what an article is about (for example, "The prevalence of duplicate publication"), while the publication type is used to tag an article as being a certain type or possessing certain characteristics regardless of its subject matter (for example, "Notice of duplicate publication").

4) **former main headings** - this group contains terms that were formerly listed as main headings (e.g., RETRACTED PUBLICATION, PERIODICAL INDEXES (now PERIODICAL INDEX), REVIEW OF REPORTED CASES), but were actually used to describe the nature of the publication and not the subject content.

5) **new concepts** - this last group includes concepts that were not previously identified in any form, e.g., ABSTRACT, LEGAL BRIEF, GUIDELINE, or SCIENTIFIC INTEGRITY REVIEW. The group also includes the designation JOURNAL ARTICLE, which will clearly be the most common type to be carried in any MEDLINE citation. Inclusion of JOURNAL ARTICLE as a publication type permits users to add this as a search parameter and thus to exclude such things as letters, editorials, or news if they so desire.

### Availability of Publication Types

The complete list of publication types with scope notes and annotations is printed in the introduction to the 1991 Annotated Alphabetic List beginning on page I-17. The publication types do NOT appear in the alphabetic listing of MeSH headings, in the tree structures, or in the online MeSH Vocabulary File. Because they are not subject headings, it was felt that it would be misleading to include them in the body of the MeSH. This means that some familiar headings will no longer be seen in the alphabetic listing, for example HISTORICAL ARTICLE and RETRACTED PUBLICATION, among others. For convenience, the list is printed with this issue of the *Technical Bulletin* as Appendix F.

Publication Types will also be carried in the F10 array in the GRATEFUL MED Version 5.0 upgrade for 1991 MeSH with notes to assist users in identifying them and distinguishing them from similar or identical MeSH headings.

### Searching Publication Types

For 1991, all publication types are available for use in MEDLINE and MEDLINE-derived databases, although not all will be applicable to every database. For the MEDLINE-derived databases, they may appear only in those portions of the database pulled from MEDLINE or indexed using MeSH. Non-MEDLINE-derived databases that already have a Publication Type field will continue their current practices for identifying and inputting this type of information.

For CATLINE and AVLINE in 1991, four publication types will be available:

GUIDELINE  
RETRACTED PUBLICATION  
SCIENTIFIC INTEGRITY REVIEW  
TECHNICAL REPORT.

All data will be entered into the PT field in the online citation. The PT field may be multiply occurring and is directly searchable (use of the (PT) qualifier is optional):

ACQUIRED IMMUNODEFICIENCY SYNDROME  
and CLINICAL TRIAL (PT)

will retrieve citations to articles reporting clinical trials in AIDS. (Note the singular form of the publication type.) CLINICAL TRIAL has been set up much like REVIEW; that is, searching on the type REVIEW will retrieve citations to all of the specific review types (REVIEW, ACADEMIC; REVIEW OF REPORTED CASES, etc.). Searching on CLINICAL TRIAL will retrieve citations not only to CLINICAL TRIAL itself, but to RANDOMIZED CONTROLLED TRIAL and to MULTICENTER STUDY. Of course, users may limit to specific review or clinical trial categories as desired.

In a similar manner, searching on the term CONSENSUS DEVELOPMENT CONFERENCE will also retrieve articles indexed with the more specific term CONSENSUS DEVELOPMENT CONFERENCE, NIH and searching on BIBLIOGRAPHY will retrieve citations indexed to the specific BIBLIOGRAPHY OF MEDICINE and BIOBIBLIOGRAPHY.

As mentioned above, only four of the new publication types will be used in CATLINE and AVLINE for 1991. Cataloging form subheadings will continue to be used in CATLINE and AVLINE to reflect publication types and media. Many of the new values established as Publication Type descriptors overlap in definition and application with form subheadings used in cataloging. Further analysis of the use of form subheadings and their relationship to Publication Types will be needed before expanding the implementation of Publication Types in CATLINE and AVLINE.

#### Relation of Publication Types to Equivalent or Near-Equivalent Main Headings

Users should be aware that equivalent or near-equivalent main headings are now reserved for the concept as a subject. In these cases, the concept will

almost always be the main point of any article and hence, designated with an asterisk.

Articles about the feasibility of clinical trials in hypercholesterolemia research would be indexed as:

\*HYPERCHOLESTEROLEMIA  
\*CLINICAL TRIALS

Articles reporting clinical trials in hypercholesterolemia would be indexed as:

\*HYPERCHOLESTEROLEMIA  
CLINICAL TRIAL (PT) (note the singular form)

#### Retrieving Publication Types in pre-1991 MEDLINE Citations

Implementation of the Publication Type retrospectively in the MEDLINE family of databases has been planned to occur in phases. For 1991, four categories of global change are being made:

1. Former Citation Types and MeSH headings formerly used to describe the nature of published information are being moved from the MH field to the new PT field. These include:

CURRENT BIOG-OBIT  
HISTORICAL ARTICLE  
HISTORICAL BIOGRAPHY  
MONOGRAPH (in use as Citation Type 1976-81)  
PERIODICAL INDEX (was plural as MeSH)  
RETRACTED PUBLICATION  
REVIEW, ACADEMIC  
REVIEW, MULTICASE  
REVIEW OF REPORTED CASES  
REVIEW, TUTORIAL

It is important to realize that these terms are being deleted as MeSH headings, will no longer show up in the MH field in the MEDLINE family of files, and will no longer be retrievable using the (MH) qualifier in a search statement. Users should review their stored search strategies and any routine search formulation practices that include these terms qualified as (MH) as any so qualified will cease to post in 1991.

Users will encounter no difficulties with the 1991 changes if their strategies contain these terms unqualified; they will continue to retrieve because the PT field does not need to be qualified in searching.

2. The second kind of class-maintenance change for 1991 is the addition of PT values while retaining the terms as MeSH headings in the citations. This situation occurs with terms that have main heading equivalents or near-equivalents to the 1991 Publication Types and that were used for both purposes in preceding years. For example, an article indexed with CLINICAL TRIALS (MH) in the past could have been about how to conduct clinical trials or it could have been a report of a particular clinical trial. Because the two possibilities cannot be easily ascertained without going back to the original articles for each occurrence of the heading, the MH values are being retained in the citations while the corresponding PT values are being added. This may result in some improper tagging with the PT values, but the potential overall benefit of retrospective conversion was preferred.

**PT Terms in this category are:**

BIBLIOGRAPHY  
 CLINICAL TRIAL  
 CONGRESS  
 CONSENSUS DEVELOPMENT CONFERENCE  
 CONSENSUS DEVELOPMENT CONFERENCE, NIH  
 DICTIONARY  
 DIRECTORY  
 DUPLICATE PUBLICATION  
 MULTICENTER STUDY  
 RANDOMIZED CONTROLLED TRIAL  
 REVIEW LITERATURE

**Their MH Equivalent or Near Equivalents are:**

BIBLIOGRAPHY  
 CLINICAL TRIALS  
 CONGRESSES  
 CONSENSUS DEVELOPMENT CONFERENCES  
 CONSENSUS DEVELOPMENT CONFERENCES, NIH  
 DICTIONARIES  
 DIRECTORIES  
 DUPLICATE PUBLICATION  
 MULTICENTER STUDIES  
 RANDOMIZED CONTROLLED TRIALS  
 REVIEW LITERATURE

From this list, three headings were consistently used from their introduction so that the publication type citations could be distinguished from the subject type citations: CONSENSUS DEVELOPMENT CONFERENCE; CONSENSUS DEVELOPMENT CONFERENCE, NIH; and REVIEW LITERATURE. In these cases, an asterisk indicating the MH as the main point was always used when the articles were about these concepts as subjects; when the terms were used to

identify reports of conferences, for example, no asterisk was used.

Because the distinction was so clear, all non-asterisked occurrences of these headings were moved to the PT field, but asterisked occurrences were retained in the MH field.

Caution is indicated again in examining search strategies; where the form of the PT and the MH is identical, the term qualified with MH in an existing strategy will continue to post, but not only will the retrieval be drastically reduced in volume, the concepts retrieved will be completely different.

In the cases of strategies with unqualified terms, Multi-Meaning Messages will occur when the form of the PT and MH is identical.

One last item worth mentioning in this category is DUPLICATE PUBLICATION. It was introduced in 1990 but in that period was used only as a subject and never as a publication type. Therefore no maintenance was necessary for this term and all occurrences remained in the MH field.

3. RETRACTION OF PUBLICATION is of special interest because, although it does represent a term with equivalent MH and PT values, policy on its use has changed for 1991. From its inception in 1984 through the 1990 indexing year, it was used only to indicate articles which were themselves retractions of previously published work. The MeSH heading therefore served as a publication type, and all citations containing the heading will be maintained to move RETRACTION OF PUBLICATION from the MH to the PT field.

The subject of retractions was indexed as \*PUBLISHING through 1990. For 1991, RETRACTION OF PUBLICATION will be retained as an MH, and it will now be used in that capacity to index the subject of retractions. All reports of retractions will be tagged with the equivalent Publication Type RETRACTION OF PUBLICATION.

Again, it would be wise to review all search strategies that may have included RETRACTION OF PUBLICATION qualified by MH. Although the term will continue to post as an MH in 1991, the PT and MH represent two vastly different concepts and retrieval will not be the same

4. Finally, the heading REVIEW is being retained as an MH for searching purposes for at least one year until GRATEFUL MED can be adjusted to search on

the new PT field. REVIEW is being physically deleted from citations in the MEDLINE family, but a searching access point is being kept.

Two of the categories of Publication Type mentioned at the beginning of this article are not involved in Class Maintenance for 1991, rubrics and new concepts. As they either did not exist in the MH field or were not previously identified concepts, no maintenance could be applied. As part of the next phase of publication type implementation in the MEDLINE group of files, identification and retrospective conversion of all

publication types previously existing only as rubrics is planned during 1991 to be effective with the 1992 update. Identification and retrospective conversion for any new concepts, such as JOURNAL ARTICLE, that can be determined accurately back through time is also planned for 1992.

For the present, remember that not all publication types will yield comprehensive retrieval because of this phased implementation. More information and search examples will be included in future issues of the *Technical Bulletin*.



## Coming Attractions - New Search Features

### EXPANDED TEXT WORD SEARCHING FOR MEDLINE AND RELATED DATABASES

In the past, a MEDLINE Text Word (TW) search retrieved single *terms* from the Title (TI) and the Abstract (AB) fields only. For 1991, the Text Word search is being expanded to include the new MeSH Heading Fragments (MHF) field and the existing Name Fragments (NF) field, as well as the TI and AB fields. Expanded Text Word searching will be available in MEDLINE, BACKFILES, AIDSLINE, CANCERLIT, HEALTH SDILINE AND TOXLINE. The new features are outlined below.

#### MeSH Heading Fragments (MHF)

In an effort to expand retrieval, the MeSH Heading (MH) field has been textextracted so that individual words from MeSH headings are searchable using the (MHF) qualifier. For example, a search on HEPATIC (MHF) will retrieve all MeSH headings that contain the word HEPATIC, i.e., HEPATIC ENCEPHALOPATHY and ABCESS, HEPATIC. A search on ENCEPHALOPATHY (MHF) will also retrieve records indexed with HEPATIC ENCEPHALOPATHY as well as records indexed with any other MeSH heading that contains the word ENCEPHALOPATHY. All "parts" of MeSH headings, i.e., MeSH Headings Fragments, will now be included in a Text Word (TW) search. That is, HEPATIC (TW) will retrieve records indexed with any MeSH heading containing the word HEPATIC, even though the title and abstract may not contain that word. MeSH Heading Fragments are derived from the Text Word Term Generation Rules (Manual 4.8.1) which use the ELHILL Stop Word List. Subheadings are not included nor are synonyms or cross references. Citations indexed with the specific MeSH heading HEPATIC ENCEPHALOPATHY may still be retrieved as in the past, i.e., by just searching on the MeSH Heading HEPATIC ENCEPHALOPATHY qualified with or without (MH) as you have always done. Searching using MeSH Headings (MH) has not been changed.

#### Name Fragments (NF)

Name Fragments (NF) are individual words or strings derived from the Name of Substance (NM) field which is one searchable portion of the CAS Registry/E.C. Number (RN) field (Manual 7.3.21). The software used to generate the Name Fragment includes the capability

to create the additional "legal strings" needed to describe chemicals (Manual 13.4.8); the software used to generate Text Words does not have this capability (Manual 4.8.1). While created from a different software routine, the Name Fragment values will be included in the expanded Text Word search capability because Name Fragments provide subject access to MEDLINE records. Just don't be misled into thinking the Name Fragment generation rules have been applied to the Title, Abstract, and MeSH Heading fields, because they have not been. The TI, AB, and MH fields are textextracted using the TW generation rules (Manual 4.8.1).

#### Example

To see the various fields in which a word resides, NEIGHBOR (NBR) the term. As seen below, benzene appears as an MH, a TF (Title Field Text Word), an MHF (MeSH Heading Fragment), a TW (words from the Title, Abstract, MeSH Headings, and Name of Substance), an NF (Name Fragment), and an NM (Name of Substance). The TW search now includes retrieval from the Title, Abstract, MeSH Heading Fragments, and Name Fragment fields. If you select the TW retrieval as one set, and then OR together all of the other possible benzene fields, you'll see that the second set is completely subsumed in the first set.

```
SS 1 /C?
USER:
nbr benzene
```

PROG:

SELECT #	POSTINGS	TERM
1	1	BENZEDRINE (TW)
2	1	BENZEL EC (AU)
3	12	BENZENE (MH)
4	12	BENZENE (TF)
5	24	BENZENE (MHF)

UP N OR DOWN N OR ENTER A SELECT COMMAND.

USER:

5

PROG:

SELECT #	POSTINGS	TERM
6	48	BENZENE (TW)
7	18	BENZENE (NF)
8	12	BENZENE (NM)
9	7	BENZENE DERIVATIVES (MH)
10	5	BENZENE HEXACHLORIDE (MH)

UP N OR DOWN N OR ENTER A SELECT COMMAND.

USER:  
 sel 6                    0 The (TW) BENZENE set.  
 PROG:  
 SS (1) PSTG (48)

SS 2 /C?  
 USER:  
 sel 3-5 or sel 7-8      0 All of the other possible BENZENE  
 PROG:                    sets ORed together.  
 SS (2) PSTG (26)

SS 3 /C?  
 USER:  
 2 and not 1            0 All the other retrieval is really  
 PROG:                    retrieved as part of the expanded  
 \*NONE-                    Text Word (TW) search.

**Summary**

MEDLINE Text Word searching (which for MEDLINE has always retrieved single words from the Title and Abstract fields only) will include much more for 1991.

Looking at the benzene example, (TW) benzene will contain retrieval from the MHF, TI, AB, and NF fields. Watch for future announcements for other files with this new capability.

**TITLE FIELD TEXT WORD (TF) SEARCHING**

With the completion of Year-End Processing in mid-December, each word in the Title (TI) field in MEDLINE, BACKFILES, HEALTH, SDILINE, and TOXLINE will be searchable using the (TF) Title Field Text Words field. This will allow searchers to limit retrieval to records that contain specific words from the Title field in one step. This capability is already present in CANCERLIT and AIDSLINE. Previously, to limit to title words only, a STRINGSEARCH on the TI field was necessary after a Text Word search was performed. These individual title words (TF) will also be included in the general Text Word (TW) field, as they always have been. The title words will simply be repeated in their own directly searchable field. Figure 1 illustrates a search for the word 'sleepiness' appearing in the title.

```

SS 1 /C?
USER:
(tf) sleepiness

PROG:
SS (1) PSTG (31)

SS 2 /C?
USER:
prt ti

PROG:

1
TI - The use of triazolam in older patients with periodic leg
movements, fragmented sleep, and daytime sleepiness.

2
TI - Benzodiazepines and caffeine: effect on daytime sleepiness,
performance, and mood.

3
TI - Daytime sleepiness, performance, mood, nocturnal sleep: the effect
of benzodiazepine and caffeine on their relationship.
.
.

SS 2 /C?
USER:
(tf) sleepiness            0 All TF retrieval is included in the
the broader TW retrieval set.

PROG:
SS (2) PSTG (161)

SS 3 /C?
USER:
1 and not 2

PROG:
*NONE-
    
```

Figure 1 - Title Field Text Word Searching for "Sleepiness"

**ADDRESS (AD) FIELD IN MEDLINE, AIDSLINE,  
AND HEALTH SOON TO BE SEARCHABLE**

With the completion of Year-End Processing in mid-December the Address (AD) field in MEDLINE will be searchable using the qualifier (AD). There are several important points to remember.

1. Address information has only been retained in MEDLINE since 1988 (8801 (EM)). Records from earlier years that entered the system after 8801 (EM) and have since been relevelled back into the appropriate BACKFILES will of course have address information. Therefore, there will be a limited number of records in MEDLINE's BACKFILES that may be retrieved with (AD) searching. In other words, the majority of BACKFILE records will be without address information. (Note: 1988 citations which do contain address information will be moving into the BACK86 file in mid-December.
2. Text Word term generation rules (Manual 4.8.1) are being applied to the Address field to create the searchable words. The qualifier (AD) was chosen to isolate these Text Words from the AD field for searching purposes; these words are not also posted to the general Text Word (TW) field. Information for the AD field is taken mainly "as is" from the journal article if apparent to the indexer. If it is not apparent in the article, it is not included. The AD field is really the author's affiliation rather than a complete mailing address. U.S. ZIP codes are included (if provided in the journal article), but street addresses are not.

However, users will not be able to search on ZIP codes with the new AD qualifier because ZIP codes are strictly numeric strings and do not qualify as candidate Text Word terms. It will still be necessary to STRINGSEARCH the AD field in order to search for ZIP codes.

3. There are no attempts to standardize the data format within the Address field. Therefore, remember to account for variations in wording in this field, e.g., Maryland and MD.
4. Address information is included for most citations but not all. As always, author affiliations will still not be available in citations having any of the following rubrics in the TI (Title) field: [editorial], [letter], [interview], [news], or [classical article].
5. The AD field prints automatically only with the PRT DL command. If you are searching the AD field with the new feature, you may wish to add the field when printing by using the INCLUDE option, for example: PRT INCLUDE AD or PRT AR, AD.
6. The Address field is not searchable using GRATEFUL MED; however, all print commands within GRATEFUL MED include the AD field.

The example in Figure 2 illustrates a search for records with the AD field containing the state of Maryland or the postal abbreviation 'MD' using the qualifier (AD) in MEDLINE.

SS 1 /C?

USER:

crohn disease

PROG:

SS (1) PSTG (1216)

SS 2 /C?

USER:

1 and maryland (ad) or 1 and md (ad)

PROG:

SS (2) PSTG (10)

USER:

prt compr include ad

PROG:

1

UI - 90303388

AU - Johnson GA ; Baker J

TI - Colonic perforation following mild trauma in a patient with Crohn's disease.

AD - Division of Emergency Medicine, Johns Hopkins Hospital, Baltimore, MD.

SO - Am J Emerg Med 1990 Jul;8(4):340-1

2

UI - 90239641

AU - Scott WW Jr ; Fishman EK ; Kuhlman JE ; Caskey CI ; O'Brien JJ ;  
Walia GS ; Bayless TM

TI - Computed tomography evaluation of the sacroiliac joints in Crohn disease. Radiologic/clinical correlation.

AD - Russell H. Morgan Department of Radiology, Johns Hopkins Medical Institutions, Baltimore, Maryland.

SO - Skeletal Radiol 1990;19(3):207-10

.  
.  
.

Figure 2 - Searching the Address (AD) Field for "Maryland"

**TRANSPLANTATION HEADINGS ADDED RETROSPECTIVELY**

Last year, several new "transplantation" MeSH headings, such as BONE MARROW TRANSPLANTATION, were added for the 1990 system. (These are listed below.) However, to search for a transplantation concept such as bone marrow transplantation back through time, searchers had to do two things. First, they had to search the MeSH heading BONE MARROW TRANSPLANTATION to retrieve citations indexed from 1990 forward; and second, they had to remember to search BONE MARROW/TR (where TR= the transplantation subheading) to retrieve all records prior to 1990.

As part of 1991 Year-End Processing, NLM is adding the appropriate precoordinated transplantation heading to citations with the matching MeSH heading/transplantation combination. For example, for each record that contains BONE MARROW/TR, the MeSH heading BONE MARROW TRANSPLANTATION is being added retrospectively in MEDLINE, the BACKFILES, HEALTH, AIDSLINE, TOXLINE, and CANCERLIT. The original MeSH heading/subheading combinations are being retained. To search for any transplantation concept in 1991, just use the precoordinated transplantation headings.

Transplantation headings to be added retrospectively:

- HEART TRANSPLANTATION
- BONE MARROW TRANSPLANTATION
- BONE TRANSPLANTATION
- CORNEAL TRANSPLANTATION
- KIDNEY TRANSPLANTATION
- LIVER TRANSPLANTATION
- LUNG TRANSPLANTATION
- PANCREAS TRANSPLANTATION
- SKIN TRANSPLANTATION

Please note - these headings will be added with asterisks to designate the main point of an article when appropriate but no subheadings can be added retrospectively.

The only exceptions are HEART-LUNG TRANSPLANTATION, as this concept could not be isolated easily and ISLETS OF LANGERHANS TRANSPLANTATION, which is a new heading for 1991. Both of these will be maintained for 1992.

To search comprehensively in the MEDLINE file for

pre-1990 and post-1990 citations on HEART-LUNG TRANSPLANTATION, for example, use the following search strategy:

SS 1/ C?  
 USER:  
 heart-lung transplantation  
 PROG:  
 SS (1) PSTG (130)

SS 2/ C?  
 USER:  
 heart/tr and lung/tr  
 PROG:  
 SS (2) PSTG (190)

SS 3/ C?  
 1 OR 2  
 PROG:  
 SS (3) PSTG (320)

**TITLE ABBREVIATION CHANGES DURING 1990**

More Title Abbreviations (TAs) and Journal Title Codes (JCs) will be changed during 1990 Year-End Processing. Some of the changes are minor and will probably not affect searching MEDLINE or its BACKFILES. Other changes are significant and in some cases are due to bibliographic changes in the SERLINE record for the journal title. This article points out those changes considered to be significant because they affect searching and provides an explanation of the reasons for the changes.

A. Some supplements that were indexed as part of the main title (dependent supplements) were found to be independent supplements and now have a separate Journal Title Code (JC) and TAs with "Suppl" at the end; these changes were made retrospectively for each of the titles listed below. Those supplements are:

TA	JC
Br J Psychiatry Suppl	AKU
Geogr Med Suppl	AUN
J Cardiogr Suppl	AKN
J Cardiol Suppl	AKO
J Exp Zool Suppl	AQU

TA	JC
Lasers Surg Med Suppl	ARM
Prostate Suppl	ANH
Rhinol Suppl	AQB
UPS J Med Sci Suppl	WRH

NOTE: The main titles continue to have the same TAs and JCs as before. If you wish to include these supplements in a TA search you will need to add these new TA's to your strategy in addition to the TA's for the parent journal.

B. The following titles published by the CRC Press all changed in 1980 when "CRC" was dropped from the title. NLM's cataloging and serials control data were recently updated to reflect these title changes, and the TAs and JCs beginning with 1980 citations will be as follows:

TA	JC
Crit Rev Clin Lab Sci	AGO
Crit Rev Diagn Imaging	AF2
Crit Rev Food Sci Nutr	AF0
Crit Rev Immunol	AF1
Crit Rev Microbiol	AFN
Crit Rev Toxicol	AFR

C. The following titles have been recataloged, and as a result, the title abbreviations (TAs) have been changed for both prospective and all retrospective data. The journal Title Codes (JCs) remain unchanged.

Old TA	New TA	JC
Alcoholism Alcoholism (N Y) Alcoholism (NY)	Alcohol Clin Exp Res	35X
Can Dent Assoc J	J Can Dent Assoc	CHC
JEN	J Emerg Nurs	KRU

D. Several interrelated nursing titles seem to be causing confusion for both users and NLM staff. After

considerable bibliographic detective work, staff in the Serial Records Section at NLM have determined how the various pieces fit together. The following are the titles in question with a brief explanation of how they are related.

1. Nursing Standard

TA: Nurs Stand  
CA: W1 NU758H  
UI: N3531500  
JC: NUS  
FL: N345, May 3 1984-N507, Jul 30 1987  
PU: Royal College of Nursing

Because this title incurred a major change in 1987, a separate bibliographic record was established for the new series. It continues to be shelved with the former title, and retains the same title abbreviation. The bibliographic record for the current series is as follows:

Nursing Standard

TA: Nurs Stand  
CA: W1 NU758H  
UI: SR0069015  
JC: AWH  
FL: 1N1, Sep 12 1987--  
PU: Scutari for the Royal College of Nursing

Note that the UI, JC and FL fields have unique values that can be used to distinguish between the two identical titles.

2. Nursing Standard. Special Supplement

TA: Nurs Stand Spec Suppl  
CA: W1 NU758HA  
UI: SR0068909  
JC: AUV  
FL: [1], Sep 1988--  
PU: Scutari for the Society for Tissue Viability

This is an independent supplement issued by the Society for Tissue Viability. Volume 1, 1988, which is unnumbered, is shelved with Nursing Standard (W1 NU758H) at NLM.

NOTE: There are also special supplements that are unnumbered and are not published by the Society for Tissue Viability. These are considered to be dependent supplements and will continue to be indexed and shelved with Nursing Standard.

3. Nursing Practice

TA: Nurs Pract  
 CA: W1 NU657T  
 UI: SR0052331  
 JC: NUP  
 FL: 1N1, Spring 1985--  
 PU: Scutari Publications

Volume 1, 1985 was independent. Issues published from 1986 to 1988 constitute volume 2, but were unnumbered and included as a section of Nursing Times. In 1989 (vol. 3) Nursing Practice resumed its status as an independent publication. It is issued inside of Nursing Standard, but it is a distinct bibliographic entity and can be removed from the issues of Nursing Standard. It is bound and shelved separately at NLM.

4. Tradimus

TA: Tradimus  
 CA: W1 TR1099  
 UI: SR0057691  
 JC: WAO  
 FL: 1, 1985-11, Autumn 1989  
 PU: RCN Typesetting and Production

This title was independent from 1985-1989. In 1990 it became a section of Nursing Standard.

5. Lampada

TA: Lampada  
 CA: W1 LA44D  
 UI: SR0054640  
 JC: LAM  
 FL: N1, Fall 1984--  
 PU: Royal College of Nursing

Beginning in 1990 the issues of this journal were bound inside of Nursing Standard, but it is numbered independently, and will continue to be cited with its own Title Abbreviation and JC.

**GENE SYMBOL (GS) - A NEW FIELD**

The 1991 online system will bring another new field to MEDLINE and related ELHILL databases. This latest addition to the ELHILL databases represents a further cooperative effort between the NLM's Division of Library Operations and the National Center for Biotechnology Information (NCBI). The new field is named Gene Symbol and its corresponding mnemonic is (GS). The field will contain the "symbol" or abbreviated

form of gene names as reported in the literature. Examples of the types of data that may be found in this field are as follows:

pyrB  
 Ghox-lab  
 pulC

As part of the indexing operation, NLM's Index Section will be responsible for adding the data in this field. However, the Index Section will not attempt to establish an authority list of gene names or to standardize the data in this field. Rather, the symbols being used by authors will be the data entered. The NCBI will track the data and keep statistics on the frequency of occurrence and variations that are used. Ultimately, this information may be used to suggest candidates for new MeSH terms or to augment other standardized vocabularies. In addition, when present, the data will provide another point of access to the citation for searchers.

The field will have a maximum length of 72 characters although it is anticipated that few, if any, gene symbols will approach the maximum length. Generally these symbols tend to be short in length. Up to 25 occurrences per record will be allowed. The field will be directly searchable, but will not be textextracted for Text Word searching. In addition to being present in MEDLINE and SDILINE (and eventually the BACKFILES), the gene symbol will also be part of AIDSLINE, TOXLINE, and the planned BIOTECHSEEK database.

The gene symbol field will represent the first use in ELHILL databases of Standard Generalized Markup Language (SGML), a relatively new manuscript markup language for electronic publishing. Among the features of SGML is a standard convention for entering special characters in data fields. Users whose systems incorporate the corresponding instructions to translate the codes then have the ability to print (or otherwise display) the special characters. In the gene symbol field, SGML will be used to designate Greek characters, superscripts, and subscripts that may appear as part of the gene symbol.

The ampersand (&) and semicolon (;) will be the respective beginning and ending delimiters for Greek characters with specified alphabetic codes to designate the appropriate letter and whether it is upper or lower case. See Figure 3. The less than/greater than signs will be used to define superscripted and subscripted regions. The beginning of a superscripted region will be

For Greek letters, tag the beginning of text with & and the end of text with ;

Symbol	Greek Letter	Type	Symbol	Greek Letter	Type
$\alpha$	lower case alpha	&agr;	$\pi$	lower case pi	&pgr;
A	upper case alpha	&Agr;	$\Pi$	upper case pi	&Pgr;
$\beta$	lower case beta	&bgr;	$\rho$	lower case rho	&rgr;
B	upper case beta	&Bgr;	P	upper case rho	&Rgr;
$\gamma$	lower case gamma	&ggr;	$\sigma$	lower case sigma	&agr;
$\Gamma$	upper case gamma	&Ggr;	$\Sigma$	upper case sigma	&Sgr;
$\delta$	lower case delta	&dgr;	$\varsigma$	final lower case sigma	&sfgr;
$\Delta$	upper case delta	&Dgr;	$\tau$	lower case tau	&tgr;
$\epsilon$	lower case epsilon	&egr;	T	upper case tau	&Tgr;
E	upper case epsilon	&Egr;	$\upsilon$	lower case upsilon	&ugr;
$\zeta$	lower case zeta	&zgr;	Y	upper case upsilon	&Ugr;
Z	upper case zeta	&Zgr;	$\phi$	lower case phi	&phgr;
$\eta$	lower case eta	&egr;	$\Phi$	upper case phi	&PHgr;
H	upper case eta	&EEgr;	$\chi$	lower case chi	&khgr;
$\theta$	lower case theta	&thgr;	X	upper case chi	&KHgr;
Q	upper case theta	&THgr;	$\psi$	lower case psi	&psgr;
$\iota$	lower case iota	&igr;	$\Psi$	upper case psi	&PSgr;
I	upper case iota	&Igr;	$\omega$	lower case omega	&ohgr;
$\kappa$	lower case kappa	&kgr;	$\Omega$	upper case omega	&OHgr;
K	upper case kappa	&Kgr;			
$\lambda$	lower case lambda	&lgr;			
$\Lambda$	upper case lambda	&Lgr;			
$\mu$	lower case mu	&mgr;			
M	upper case mu	&Mgr;			
$\nu$	lower case nu	&ngr;			
N	upper case nu	&Ngr;			
$\xi$	lower case xi	&xgr;			
$\Xi$	upper case xi	&Xgr;			
$\omicron$	lower case omicron	&ogr;			
O	upper case omicron	&Ogr;			

Figure 3 - Code Designations for Greek Characters



designated by <up>; while </up> will signal its end. Similarly, <down> will indicate the beginning of a subscripted region; while </down> will indicate the end. The following are examples of the way in which NLM will use SGML to code specific gene symbols that contain Greek characters and/or superscripts or subscripts:

$\alpha$ -rif	would be entered as	&agr;-rif
teu <sup>1</sup>	would be entered as	teu<up>1</up>
Jml <sub>r12</sub>	would be entered as	Jml<down>r12</down>

For the foreseeable future, ELHILL will not be able to accommodate the necessary instructions to display these characters as if they were typeset. They will print online and offline exactly as they are coded (i.e., as in the examples above).

Because the GS field is directly searchable, NLM's use of SGML to code the data in this field will affect your searching. You will need to account for these SGML coding strings in your search terms. For example, the strategy 'teu1 (GS)' will not retrieve the superscript example from above. Truncation or NEIGHBORING and SELECTING are likely to be preferred techniques for searching the GS field. Remember that the index to an ELHILL database is in all uppercase letters. You will not be able to distinguish between an upper case or lower case Greek letter when searching the GS field, but you will be able to differentiate them when the records are printed. More details will be in the annual Special Issue after programming changes are completed and sample data exist to illustrate these searching techniques.

#### ADDITION OF THE COMMENTS (CM) FIELD TO FILE HEALTH

In 1989 NLM began providing comment linkages for commenting items in MEDLINE with a publication date of 1989 or later (see the November 1989 *Technical Bulletin* for an in-depth discussion of comment linkages in MEDLINE). Comment linkages for items in the HEALTH file are subject to the same policy and scope considerations as those in MEDLINE: linkages will be provided for commenting items with a publication date of 1989 or later, and only for items commenting upon a previous item within the same journal title. Unlike comment linkages in MEDLINE, both parts of the

linkage need not exist in HEALTH: a majority of the commenting items in MEDLINE are letters and letters are not included in HEALTH. NLM, in joint discussion with the American Hospital Association (AHA) representative, decided to provide one-way linkages from items commented upon in HEALTH to commenting letters in MEDLINE. This insured that citations would contain the same information in both files, thereby preserving data integrity. It is up to the user to decide whether to search for commenting items which may only be in MEDLINE.

Comments are added one of two ways each month to citations in MEDLINE:

- 1) directly to citations going into MEDLINE and Index Medicus (for commenting items that comment upon an item within the same issue of a journal) or,
- 2) through maintenance to citations already in the MEDLINE database (for comments that comment upon items in an earlier issue of a journal).

Comment linkages have been added to HEALTH through one of three ways:

- 1) through citations coming into HEALTH from MEDLINE. At the end of each entry month for MEDLINE a stored search is run against citations in SDILINE and the citations merged into the updated HEALTH file. Comments within the same issue of journals going into MEDLINE will go into HEALTH if retrieved by the search. One of the journals in which this occurs is the New England Journal of Medicine. The CM field has been part of the HEALTH unit record since the 9001 Entry Month.
- 2) through citations entered by the AHA representative. Journals indexed by the AHA in Chicago are sent to NLM and revised by an AHA representative on-site. She has been providing comment linkages for comments that occur within the same issue of a journal indexed by AHA. The indexer has been doing this since March 1990. Comments within the same issue occur very infrequently within AHA journals.
- 3) through maintenance to citations which have come into HEALTH through the monthly MEDLINE search strategy. When comment linkages are made to citations in MEDLINE, these citations are also searched to see if they exist in HEALTH. If they do, a linkage will be provided even though one of the links may exist only in

**MEDLINE.** The citations affected (usually articles commented upon by a letter in MEDLINE) can be to items with a publication date and/or entry month earlier than 1989 because only the commenting item has to be publication year 1989 or later.

Maintenance to citations already in HEALTH (see 3 above) usually appears one month after revisions for the corresponding MEDLINE citations.

### CONSIDER ALSO REFERENCES

For 1991, a new reference has been added to MeSH, the **consider also** reference. Like the long-standing **see related** references, **consider also** references are provided to suggest other headings in MeSH that relate to the subject and that may be useful in indexing, cataloging, or searching a particular topic. This new notation, carried primarily on anatomic headings for 1991, indicates the presence of other headings that relate to the topic

linguistically, e.g., BRAIN **consider also** terms at CEREBR- and ENCEPHAL-. Note that the **consider also** refers to groups of headings beginning with a common stem rather than to a single heading, and that the entries suggested are generally those beginning with a Greek or Latin linguistic root for the concept.

The **consider also** references are printed in both the Annotated MeSH and the Black and White (or Index Medicus) MeSH and in Index Medicus itself. They appear directly beneath the term as the first piece of information on the entry, as shown on the next page.

#### SKIN

**consider also** terms at CUTANEOUS, CUTIS, and DERM-  
A1.835+

...

The **consider also** terms will be carried in the F10 array in the GRATEFUL MED IBM Version 5.0 update and in the Mac Version 1.5, to assist users in identifying potentially useful terms.

# Serials Update

## INDEXED TITLES UPDATE, JULY - AUGUST 1990

The following titles cited in MEDLINE, HEALTH, and POPLINE have recently been selected for indexing, undergone a title change, or ceased publication. This list is not cumulative; the information provided is only for titles whose status has changed since the last UPDATE.

More detailed information may be found in SERLINE. For further information, please contact MMS or Ms. Esther Baldinger, (301) 496-1276, Technical Services Division, NLM.

### TITLES SELECTED FOR INDEXING, JULY 1990

- |   |   |
|---|---|
| <p><b>IM ADVANCES IN DERMATOLOGY</b><br/>           ADV DERMATOL<br/>           1,1986--<br/>           YEAR BOOK MEDICAL PUBLISHERS<br/>           CHICAGO IL UNITED STATES<br/>           CONTINUES: CURRENT ISSUES IN DERMATOLOGY.<br/>           INDEXING BEGAN WITH V1,1986.<br/>           W1 AD546L 0882-0880<br/>           SR0056146 JC: AUX</p>   | <p><b>IM BIOLOGICAL TRACE ELEMENT RESEARCH</b><br/>           BIOL TRACE ELEM RES<br/>           1,MAR 1979--<br/>           HUMANA PRESS<br/>           LONDON ENGLAND<br/>           PUBLISHED UNDER THE AUSPICES OF THE<br/>           INTERNATIONAL ASSOCIATION OF BIOINORGANIC<br/>           SCIENTISTS. FREQUENCY VARIES.<br/>           INDEXING BEGAN WITH V15N1,1988.<br/>           W1 BI761 0163-4984<br/>           B17075000 JC: AU1<br/>           HUMANA PRESS, CRESCENT MANOR, BOX 2148,<br/>           CLIFTON NJ 07015</p> |
| <p><b>IM AIDS EDUCATION AND PREVENTION</b><br/>           AIDS EDUC PREV<br/>           1N1,SPRING 1989--<br/>           GUILFORD PUBLICATIONS<br/>           NEW YORK NY UNITED STATES<br/>           OFFICIAL PUBLICATION OF THE INTERNATIONAL<br/>           SOCIETY FOR AIDS EDUCATION.<br/>           INDEXING BEGAN WITH V1N1,SPRING 1989.<br/>           W1 AI696CHN 0899-9546<br/>           SR0064631 JC: AU1<br/>           GUILFORD PUBLICATIONS INC,72 SPRING<br/>           STREET,NEW YORK NY 10012</p> | <p><b>IM BIOLOGY OF METALS</b><br/>           BIOL MET<br/>           1N1,JUN 1988--<br/>           SPRINGER INTERNATIONAL<br/>           BERLIN GERMANY, WEST<br/>           VOL. 1 (1988) COMPLETE IN 2 ISSUES.<br/>           INDEXING BEGAN WITH V1N1,1988.<br/>           W1 BI852MJ 0933-5854<br/>           SR0064719 JC: AU2</p>  |
| <p><b>IM ANNALI ITALIANI DI MEDICINA INTERNA</b><br/>           ANN ITAL MED INT<br/>           1N1,MAR 1986--<br/>           EDIZIONI LUIGI POZZI<br/>           ROMA ITALY<br/>           CALLED ALSO: ITALIAN ANNALS OF INTERNAL<br/>           MEDICINE. OFFICIAL ORGAN OF THE ITALIAN<br/>           SOCIETY OF INTERNAL MEDICINE.<br/>           INDEXING BEGAN WITH V1N1,1986.<br/>           W1 AN5427 0393-9394<br/>           SR0058976 JC: AUZ</p>   | <p><b>IM BIOTHERAPY</b><br/>           BIOTHERAPY<br/>           1,1988--<br/>           KLUMER<br/>           DORDRECHT NETHERLANDS<br/>           AN INTERNATIONAL JOURNAL ON BIOLOGICAL<br/>           AGENTS IN THE TREATMENT OF DISEASE.<br/>           INDEXING BEGAN WITH V1N1,1988.<br/>           W1 BI919MN 0921-299X<br/>           SR0062256 JC: AU3</p>  |
| <p><b>IM ANNALS OF NUCLEAR MEDICINE</b><br/>           ANN NUCL MED<br/>           1N1,SEP 1987--<br/>           JAPANESE SOCIETY OF NUCLEAR MEDICINE<br/>           TOKYO JAPAN<br/>           FREQUENCY VARIES.<br/>           INDEXING BEGAN WITH V1N1,SEP 1987.<br/>           W1 AN6157 0914-7187<br/>           SR0064840 JC: AU0<br/>           JAPANESE SOCIETY OF NUCLEAR<br/>           MEDICINE,2-28-45 HONKOMAGOME,BUNKYO-KU,TO<br/>           KYO 113,JAPAN</p>  | <p><b>IM BRAIN TOPOGRAPHY</b><br/>           BRAIN TOPOGR<br/>           1N1,FALL 1988--<br/>           HUMAN SCIENCES PRESS<br/>           NEW YORK NY UNITED STATES<br/>           INDEXING BEGAN WITH V1N1,FALL 1988.<br/>           W1 BR116Q 0896-0267<br/>           SR0062374 JC: AU4<br/>           HUMAN SCIENCES PRESS,233 SPRING<br/>           STTREET,NEW YORK NY 10013-1578</p>   |

- IM** **CANCER CELLS**  
**CANCER CELLS**  
 IN1,SEP 1989--  
 COLD SPRING HARBOR LABORATORY  
 COLD SPRING HARBOR NY UNITED STATES  
 CONTINUES: CANCER CELLS. VOL. 1 (1989)  
 COMPLETE IN 4 ISSUES.  
 INDEXING BEGAN WITH V1N1,SEP 1989.  
 W1 CA677BGG 1042-2196  
 SRO063198 JC: AUS  
 COLD SPRING HARBOR LABORATORY,  
 PUBLICATION SALES, BOX 100, COLD SPRING  
 HARBOR NY 11724
- IM** **CANCER CHEMOTHERAPY AND BIOLOGICAL RESPONSE**  
**MODIFIERS**  
**CANCER CHEMOTHER BIOL RESPONSE MODIF**  
 9,1987--  
 ELSEVIER  
 AMSTERDAM NETHERLANDS  
 CONTINUES: CANCER CHEMOTHERAPY.  
 INDEXING BEGAN WITH V9,1987.  
 W1 CA677BS 0921-4410  
 SRO061692 JC: AU6
- IM** **CANCER COMMUNICATIONS**  
**CANCER COMMUN**  
 1,1989--  
 PERGAMON PRESS  
 NEW YORK NY UNITED STATES  
 FREQUENCY VARIES: 6Y, VOL. 1 (1989); 12Y,  
 VOL. 2 (1990)-  
 INDEXING BEGAN WITH V1N1,1989.  
 W1 CA667U 0955-3541  
 SRO063589 JC: AU7
- IM** **CANCER TREATMENT AND RESEARCH**  
**CANCER TREAT RES**  
 1,1981--  
 KLUWER ACADEMIC  
 THE HAGUE NETHERLANDS  
 INDEXING BEGAN WITH V37,1988.  
 W1 CA693  
 C06110000 JC: AVA  
 MARTINUS NIJHOFF PUBLISHERS, PO BOX 566,  
 2501 CN THE HAGUE, NETHERLANDS
- IM** **CELLULAR SIGNALLING**  
**CELL SIGNAL**  
 IN1,1988-89--  
 PERGAMON PRESS  
 OXFORD ENGLAND  
 INDEXING BEGAN WITH V1N1,1989.  
 W1 CE1298 0898-6568  
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4N4, OCT 1977 -  
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006740000 JC: PAD

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| <p>IM ANNALES DE CHIRURGIE DE LA MAIN ET DU<br/>MEMBRE SUPERIEUR<br/>ANN CHIR MAIN MEMB SUPER<br/>9N1,1990--<br/>EXPANSION SCIENTIFIQUE FRANCAISE<br/>PARIS FRANCE<br/>OFFICIAL ORGAN OF SOCIETES DE CHIRURGIE DE<br/>LA MAIN. FIVE ISSUES ANNUALLY: THREE IN<br/>FRENCH, TWO IN ENGLISH. CONTINUES:<br/>ANNALES DE CHIRURGIE DE LA MAIN.<br/>INDEXING BEGAN WITH V9N1,1990<br/>W1 AN327LP 0753-9053<br/>SR0068789 JC: AT9</p> | <p>IM BJR. SUPPLEMENT<br/>BJR SUPPL<br/>23,1989--<br/>BRITISH INSTITUTE OF RADIOLOGY<br/>LONDON ENGLAND<br/>CONTINUES: BRITISH JOURNAL OF RADIOLOGY.<br/>SUPPLEMENT. SUPPLEMENT TO: BRITISH<br/>JOURNAL OF RADIOLOGY.<br/>W1 BI996 0007-1285<br/>SR0068883 JC: AUQ</p> |
| <p>IM ARCHIVES OF ORTHOPAEDIC AND TRAUMA SURGERY<br/>ARCH ORTHOP TRAUMA SURG<br/>108N1,JAN 1989--<br/>SPRINGER INTERNATIOINAL<br/>BERLIN GERMANY, WEST<br/>CONTINUES: ARCHIVES OF ORTHOPAEDIC AND<br/>TRAUMATIC SURGERY.<br/>W1 AR464M 0936-8051<br/>SR0068765 JC: AT2</p>   | <p>IM EUROPEAN JOURNAL OF MORPHOLOGY<br/>EUR J MORPHOL<br/>28N1,1990--<br/>SWETS AND ZEITLINGER<br/>LISSE NETHERLANDS<br/>CONTINUES: ACTA MORPHOLOGICA<br/>NEERLANDO-SCANDINAVICA.<br/>W1 EU72DIE 0924-3860<br/>SR0068889 JC: AUT</p>                                  |
|  | <p>IM WEST OF ENGLAND MEDICAL JOURNAL<br/>WEST ENGL MED J<br/>105N1,MAR 1990--<br/>CLINICAL PRESS<br/>BRISTOL ENGLAND<br/>CONTINUES: BRISTOL MEDICO-CHIRURGICAL<br/>JOURNAL.<br/>W1 WE403<br/>SR0068788 JC: AT8</p>  |

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| <p>HLI HEALTH TECHNOLOGY<br/>HEALTH TECHNOL<br/>1N1,JAN/FEB 1987-3N4,WINTER 1990<br/>ECRI<br/>PLYMOUTH MEETING PA UNITED STATES<br/>FORMED BY THE UNION OF: JOURNAL OF HEALTH<br/>CARE TECHNOLOGY, AND: ISSUES IN HEALTH CARE<br/>TECHNOLOGY. CONTINUED BY: HEALTH<br/>TECHNOLOGY MANAGEMENT, WHICH IS CATALOGED<br/>AS A MONOGRAPH AT NLM. FREQUENCY VARIES:<br/>BIMONTHLY V.1-2; QUARTERLY V.3.<br/>INDEXING BEGAN WITH V1N1,JAN-FEB 1987.<br/>W1 HE598FG 0891-1924<br/>SR0058847 JC: FYD</p> | <p>IM QUADERNI SCLAVO DI DIAGNOSTICA CLINICA E DI<br/>LABORATORIO<br/>QUAD SCLAVO DIAGN<br/>1,1965-24,1988<br/>ISTITUTO SIEROTERAPICO E VACCINOGENO<br/>TOSCANO SCLAVO<br/>SIENA ITALY<br/>INDEXING BEGAN WITH V7N1,MAR 1971.<br/>W1 QU156M 0033-4979<br/>Q00640000 JC: QLU</p> |
|   | <p>INI SJUKSKOTERSKAN<br/>SJUKSKOTERSKAN<br/>1983-MAY 1990<br/>SVENSK SJUKSKOTERSKEFORENING<br/>STOCKHOLM SWEDEN<br/>INDEXING BEGAN WITH N13,MAY 1983.<br/>W1 SJ819 0280-3526<br/>S26877500 JC: UTC</p>   |



INDEXED TITLES UPDATE, AUGUST 1990

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| <p><b>INI</b> ACADEMIC NURSE<br/>ACAD NURSE<br/>7N1, SPRING 1987--<br/>SCHOOL OF NURSING, COLUMBIA UNIVERSITY<br/>NEW YORK NY UNITED STATES<br/>CONTINUES: SNC, WHICH IS NOT IN THE NLM<br/>COLLECTION. NLM COLLECTS FROM VOL. 9<br/>(1990)-<br/>INDEXING BEGAN WITH V9N1, SPRING 1990.<br/>ON ORDER<br/>SR0061977 JC: AHE</p>                            | <p><b>IM</b> INTERNATIONAL JOURNAL OF SYSTEMATIC<br/>BACTERIOLOGY<br/>INT J SYST BACTERIOL<br/>16, 1966--<br/>AMERICAN SOCIETY FOR MICROBIOLOGY<br/>WASHINGTON DC UNITED STATES<br/>CONTINUES: INTERNATIONAL BULLETIN OF<br/>BACTERIOLOGICAL NOMENCLATURE AND TAXONOMY.<br/>INDEXING BEGAN WITH V40N1, JAN 1990.<br/>M1 IN791K 0020-7713<br/>I28220000 JC: AMO<br/>AMERICAN SOCIETY FOR MICROBIOLOGY, 1913<br/>I STREET NW, WASHINGTON DC 20006</p> |
| <p><b>HLI</b> ADVANCES IN HEALTH ECONOMICS AND HEALTH<br/>SERVICES RESEARCH. SUPPLEMENT<br/>ADV HEALTH ECON HEALTH SERV RES SUPPL<br/>1, 1990--<br/>JAI PRESS<br/>GREENWICH CT UNITED STATES<br/>SUPPLEMENT TO: ADVANCES IN HEALTH ECONOMICS<br/>AND HEALTH SERVICES RESEARCH.<br/>INDEXING BEGAN WITH V1, 1990.<br/>IN PROCESS<br/>SR0069124 JC: AHS</p> | <p><b>INI</b> KINDERKRANKENSCHWESTER<br/>KINDERKRANKENSCHWESTER<br/>N1, 1982--<br/>SCHMIDT-ROMHILD<br/>LUBECK GERMANY, WEST<br/>INDEXING BEGAN WITH V6N1, JUN 1987.<br/>M1 KI626 0723-2276<br/>K05465000 JC: AMQ</p>  |
|   | <p><b>INI</b> NURSE MANAGERS BOOKSHELF<br/>NURSE MANAGERS BOOKSHELF<br/>IN1, MAR 1989--<br/>WILLIAMS AND MILKINS<br/>BALTIMORE MD UNITED STATES<br/>INDEXING BEGAN WITH V1N1, MAR 1989.<br/>M1 NU553L<br/>SR0068175 JC: AML</p>   |

TITLE CHANGES, AUGUST 1990

- IM** PHOTODERMATOLOGY, PHOTOIMMUNOLOGY AND  
PHOTOMEDICINE  
PHOTODERMATOL PHOTOIMMUNOL PHOTOMED  
7N1, FEB 1990--  
MUNKSGAARD  
COPENHAGEN DENMARK  
CONTINUES: PHOTO-DERMATOLOGY.  
IN PROCESS  
SR0069099 JC: AMP

TITLES NO LONGER INDEXED AS OF AUGUST 1990

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|---|--|
| <p><b>IM</b> KLINIKA OCZNA<br/>KLIN OCZNA<br/>25, 1923-91, 1989<br/>PANSTWOWY ZAKLAD WYDAWNICTW LEKARSKICH<br/>WARSZAWA POLAND<br/>VOLS. 17-24, 42-49 NOT PUBLISHED. VOLS FOR<br/>1923-76 CALLED V. 1-46 BUT CONSTITUTE V.<br/>25-41, 50-78; FOR 1967-76 CALLED ALSO V.<br/>45-54. CONTINUES POSTEP OKULISTYCZNY. ORGAN<br/>OF THE POLSKIE TOWARZYSTWO OKULISTYCZNE.<br/>CALLED ALSO: ACTA OPHTHALMOLOGICA POLONICA.<br/>M1 KL303 0023-2157<br/>K06660000 JC: KWC</p> | <p><b>IM</b> MEDICO-LEGAL BULLETIN<br/>MED LEG BULL<br/>N74, APR 1959-N145, MAY 1965; 14N6, JUN<br/>1965-39N3, MAY/JUN 1990<br/>VIRGINIA DEPARTMENT OF HEALTH<br/>RICHMOND VA UNITED STATES<br/>CONTINUES: BULLETIN OF THE OFFICE OF THE<br/>CHIEF MEDICAL EXAMINER OF THE COMMONWEALTH<br/>OF VIRGINIA, DEPARTMENT OF HEALTH.<br/>M1 ME768E 0025-8164<br/>M23180000 JC: M4M</p> |
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NATL DENT ASSOC J  
41N1, JUN 1984-45N1, JAN/MAR 1989  
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CONTINUES: THE QUARTERLY OF THE NATIONAL  
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VOL 44 (1988) COMPLETE IN 2 NUMBERS?  
W1 NA398C  
SR0052001 JC: NDA

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NEW YORK NY UNITED STATES  
INDEXING BEGAN WITH 2,1965.  
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1991 WEEKLY UPDATE SCHEDULE FOR MEDLINE

Entry Month	Updated MEDLINE Available	Date of Entry (DA) Ranges
9101 (EM)	Dec 17	901026-901121*
9102 (EM)	Dec 29	901123-901227*
9103 (EM)		
Part 1	Jan 5	901228-910103
Part 2	Jan 12	910104-910110
Part 3	Jan 19	910111-910117
Part 4	Jan 26	910118-910124
9104 (EM)		
Part 1	Feb 2	910125-910131
Part 2	Feb 9	910201-910207
Part 3	Feb 16	910208-910214
Part 4	Feb 23	910215-910221
9105 (EM)		
Part 1	Mar 2	910222-910228
Part 2	Mar 9	910301-910307
Part 3	Mar 16	910308-910314
Part 4	Mar 23	910315-910321
Part 5	Mar 30	910322-910328
9106 (EM)		
Part 1	Apr 6	910329-910404
Part 2	Apr 13	910405-910411
Part 3	Apr 20	910412-910418
Part 4	Apr 27	910419-910425
9107 (EM)		
Part 1	May 4	910426-910502
Part 2	May 11	910503-910509
Part 3	May 18	910510-910516
Part 4	May 25	910517-910523
9108 (EM)		
Part 1	Jun 1	910524-910530
Part 2	Jun 8	910531-910606
Part 3	Jun 15	910607-910613
Part 4	Jun 22	910614-910620
Part 5	Jun 29	910621-910627
9109 (EM)		
Part 1	Jul 6	910628-910703*
Part 2	Jul 13	910705-910711*
Part 3	Jul 20	910712-910718
Part 4	Jul 27	910719-910725

9110 (EM)		
Part 1	Aug 3	910726-910801
Part 2	Aug 10	910802-910808
Part 3	Aug 17	910809-910815
Part 4	Aug 24	910816-910822
Part 5	Aug 31	910823-910829
9111 (EM)		
Part 1	Sep 7	910830-910905
Part 2	Sep 14	910906-910912
Part 3	Sep 21	910913-910919
Part 4	Sep 28	910920-910926
9112 (EM)		
Part 1	Oct 5	910927-911003
Part 2	Oct 12	911004-911010
Part 3	Oct 19	911011-911017
Part 4	Oct 26	911018-911024

\* Modified because of holiday

Search hint: If a patron wants weekly updates to a search then use the pattern shown below, where SS 1 represents your completed search strategy.

On August 6 - SS 1: . . . AND 9110 (EM)  
 On August 13 - SS 1: . . . AND 9110 (EM) AND FROM 910802 TO 910808  
 On August 20 - SS 1: . . . AND 9110 (EM) AND FROM 910809 TO 910815  
 On August 27 - SS 1: . . . AND 9110 (EM) AND FROM 910816 TO 910822  
 On September 3 - SS 1: . . . AND 9110 (EM) AND FROM 910823 TO 910829

1991 MONTHLY UPDATE SCHEDULE FOR NLM DATABASES

Entry Month	SDILINE UP	HEALTH UP	POPLINE UP	CANCERLIT UP	TOXLINE/LIT UP
9101	Dec 17	Dec 17	Jan 5	Jan 5	Jan 12
9102	Dec 29	Jan 5	Feb 2	Feb 2	Feb 9
9103	Jan 26	Feb 2	Mar 2	Mar 2	Mar 9
9104	Feb 23	Mar 2	Apr 6	Apr 6	Apr 13
9105	Mar 30	Apr 6	May 4	May 4	May 11
9106	Apr 27	May 4	Jun 1	Jun 1	Jun 8
9107	May 25	Jun 1	Jul 6	Jul 6	Jul 13
9108	Jun 29	Jul 6	Aug 3	Aug 3	Aug 10
9109	Jul 27	Aug 3	Sep 7	Sep 7	Sep 14
9110	Aug 31	Sep 7	Oct 5	Oct 5	Oct 12
9111	Sep 28	Oct 5	Nov 2	Nov 2	Nov 9
9112	Oct 26	Nov 2	Dec 7	Dec 7	Dec 14

December updates for POPLINE, CANCERLIT, and TOXLINE/TOXLIT are subject to change.

For MEDLINE updates, see the "1991 Weekly Update Schedule for MEDLINE."

For AIDSLINE updates, see the "1991 Update Schedule for AIDSLINE."



1991 UPDATE SCHEDULE FOR AIDSLINE

<u>Entry Month</u>	<u>Updated AIDSLINE Available</u>
9101 (EM)	Dec 26
9102 (EM)	Dec 29
9103 (EM)	
Part 1	Jan 5
Part 2	Jan 12
Part 3	Jan 19
Part 4	Jan 26
Part 5	Feb 5*
9104 (EM)	
Part 1	Feb 2
Part 2	Feb 9
Part 3	Feb 16
Part 4	Feb 23
Part 5	Mar 5*
9105 (EM)	
Part 1	Mar 2
Part 2	Mar 9
Part 3	Mar 16
Part 4	Mar 23
Part 5	Mar 30
Part 6	Apr 9*
9106 (EM)	
Part 1	Apr 6
Part 2	Apr 13
Part 3	Apr 20
Part 4	Apr 27
Part 5	May 7*
9107 (EM)	
Part 1	May 4
Part 2	May 11
Part 3	May 18
Part 4	May 25
Part 5	Jun 4*
9108 (EM)	
Part 1	Jun 1
Part 2	Jun 8
Part 3	Jun 15
Part 4	Jun 22
Part 5	Jun 29
Part 6	Jul 9*

9109 (EM)	
Part 1	Jul 6
Part 2	Jul 13
Part 3	Jul 20
Part 4	Jul 27
Part 5	Aug 6*
9110 (EM)	
Part 1	Aug 3
Part 2	Aug 10
Part 3	Aug 17
Part 4	Aug 24
Part 5	Aug 31
Part 6	Sep 10*
9111 (EM)	
Part 1	Sep 7
Part 2	Sep 14
Part 3	Sep 21
Part 4	Sep 28
Part 5	Oct 8*
9112 (EM)	
Part 1	Oct 5
Part 2	Oct 12
Part 3	Oct 19
Part 4	Oct 26
Part 5	Nov 5*

\* The last update portion is the HEALTH-derived and CANCERLIT-derived data. The other update portions are the MEDLINE-derived data. Please note that the last update portion to complete the Entry Month routinely occurs about 3 days **after** Part 1 of the next Entry Month is added, e.g., Part 5 of 9103 (EM) is added February 5, after Part 1 of 9104 (EM) which is added on February 2.



<u>Pre-Explosion Name (PX)</u>	<u>Tree Numbers where Included Terms may be Found</u>
ABNORMALITIES	C16.131
ADULT	M1.471.116
ANTIBIOTICS	D20.85
ANTIBODIES	D24.611.125
BACTERIA	B3
BACTERIAL INFECTIONS	C1.252
BEHAVIOR	F1.145
BEHAVIOR AND BEHAVIOR MECHANISMS	F1
BEHAVIORIAL AND MENTAL DISORDERS	F3
BIOCHEM PHENOM METAB	G6
BLOOD PROTEINS	D12.776.124
BRAIN	A8.186.211
CARBOHYDRATES	D9.203
CARDIOVASCULAR AGENTS	D18
CARDIOVASCULAR DISEASES	C14
CARDIOVASCULAR SYSTEM	A7
CELLS	A11
CENTRAL NERVOUS SYSTEM	A8.186
CENTRAL NERVOUS SYSTEM DISEASES	C10.228
CHEMISTRY, ANALYTICAL	E5.196; H1.181.278
CHILD	M1.471.392
CIRCULATORY, RESPIRATORY PHYSIOLOGY	G9
DENTISTRY	E6; G2.163
DIAGNOSIS, LABORATORY	E1.223
DIGESTIVE SYSTEM DISEASES	C6
ENZYMES	D8.586
EQUIPMENT AND SUPPLIES	E7
GASTROINTESTINAL DISEASES	C6.405
GENETICS	G1.273.343; G5
HEALTH FACILITIES	N2.278
HEALTH SERVICES	N2.421
HEART DISEASES	C14.280
HORMONES	D6.472
IMMUNITY	G4.610
IMMUNOLOGIC FACTORS	D24.611
LIPIDS	D10.516
MAMMALS	B2.649
MENTAL DISORDERS	F3.709
METABOLIC DISEASES	C18.452
METALS	D1.552; J1.637.517
MISCELLANEOUS TECHNIQS	E5
MUSCULOSKELETAL DISEASES	C5
NEOPLASMS	C4
NERVOUS SYSTEM	A8
NERVOUS SYSTEM DISEASES	C10
NEUROLOGIC MANIFESTATIONS	C10.597; C23.888.592
ORGANIZATION AND ADMINISTRATION	N4.452
PHYSIOLOGY, GENERAL	G7
PROTEINS	D12.776
PSYCHOLOGIC PROCESSES PRINCIPLES	F2
REPRODUCTION, UROGENITAL PHYSIOLOGY	G8
RESPIRATORY TRACT DISEASES	C8
RODENTIA	B2.649.865
SIGNS AND SYMPTOMS	C23.888
SKIN DISEASES	C17
STEROIDS	D4.808
STOMATOGNATHIC DISEASES	C7
SURGERY, OPERATIVE	E4
UNITED STATES MC [as a MeSH heading]	Z1.107.567.875
UNITED STATES [as a place of publication]	Z1.107.567.875
VASCULAR DISEASES	C14.907
VERTEBRATE VIRUSES	B4.909
VERTEBRATES	B2
VIRUS DISEASES	C2
VIRUSES	B4
WOUNDS AND INJURIES	C21.866

MeSH Heading Pre-Explosions are searchable only by the Pre-Explosion Name (PX) or \*Pre-Explosion Name (PX) and not by the tree number(s). See also Subheading Pre-explosions.



FAMILIES OF 1991 SUBHEADING PRE-EXPLOSIONS

analysis blood cerebrospinal fluid isolation & purification urine	etiology (cont'd) genetics immunology microbiology parasitology transmission	physiology (cont'd) metabolism (cont'd) blood cerebrospinal fluid deficiency enzymology pharmacokinetics urine
anatomy & histology blood supply cytology pathology ultrastructure embryology abnormalities innervation	organization & admin economics legislation & jurisprudence manpower standards supply & distribution trends utilization	physiopathology secretion
chemistry analogs & derivatives antagonists & inhibitors chemical synthesis	pharmacology administration & dosage adverse effects poisoning toxicity	therapeutic use administration & dosage adverse effects contraindications poisoning
diagnosis radiography radionuclide imaging ultrasonography	contraindications diagnostic use pharmacokinetics	therapy diet therapy drug therapy nursing prevention & control radiotherapy rehabilitation surgery transplantation
etiology chemically induced complications secondary congenital embryology	physiology genetics growth & development immunology metabolism biosynthesis	

ALPHABETIC LIST OF 1991 SUBHEADING PRE-EXPLOSIONS

<u>Full Name</u>	<u>Short Form</u>	<u>Full Name</u>	<u>Short Form</u>
adverse effects&	AE&	etiology&	ET&
analysis&	AN&	metabolism&	ME&
anatomy & histology&	AH&	organization & admin&	OG&
chemistry&	CH&	pharmacology&	PD&
complications&	CO&	physiology&	PH&
cytology&	CY&	statistics & numer data&	SN&
diagnosis&	DI&	surgery&	SU&
embryology&	EM&	therapeutic use&	TU&
epidemiology&	EP&	therapy&	TH&

Final ampersand and the qualifier (PX) are needed to search; either the full name or short form can be used. The \* may not be used in front of subheading pre-explosion.



LIST OF PUBLICATION TYPES

Below, "also MH" means that a main heading also exists; "MH plural" means that a plural main heading exists; "was cit. type" means that the new publication type was formerly a citation type.

ABSTRACT	- pub. type only
BIBLIOGRAPHY	- also MH
CLASSICAL ARTICAL	- also a rubric
CLINICAL CONFERENCE	- also a rubric
CLINICAL TRIAL	- MH plural
COMMENT	- also a rubric
CONGRESS	- MH plural
CONSENSUS DEVELOPMENT CONFERENCE	- MH plural
CONSENSUS DEVELOPMENT CONFERENCE, NIH	- MH plural
CORRECTED AND REPUBLISHED ARTICLE	- also a rubric
CURRENT BIOG-OBIT	- was cit. type
DICTIONARY	- MH plural
DIRECTORY	- MH plural
DUPLICATE PUBLICATION	- also MH
EDITORIAL	- also a rubric
FESTSCHRIFT	- pub. type only
GUIDELINE	- pub. type only
HISTORICAL ARTICLE	- was cit. type
HISTORICAL BIOGRAPHY	- was cit. type
JOURNAL ARTICLE	- pub. type only
LEGAL BRIEF	- pub. type only
LETTER	- also a rubric
MEETING REPORT	- pub. type only
MONOGRAPH	- was cit. type
MULTICENTER STUDY	- MH plural
NEWS	- also a rubric
OVERALL	- pub. type only
PERIODICAL INDEX	- pub. type
PUBLISHED ERRATUM	- also a rubric
RANDOMIZED CONTROLLED TRIAL	- MH plural
RETRACTED PUBLICATION	- also a rubric
RETRACTION OF PUBLICATION	- also MH
REVIEW	- was cit. type
REVIEW LITERATURE	- also MH
REVIEW, ACADEMIC	- pub. type only
REVIEW, MULTICASE	- pub. type only
REVIEW OF REPORTED CASES	- pub. type only
REVIEW, TUTORIAL	- pub. type only
SCIENTIFIC INTEGRITY REVIEW	- pub. type only
TECHNICAL REPORT	- pub. type only



## Priority Announcement Request Form

### TO RECEIVE NOTICE WHEN NEW CANCER PUBLICATIONS ARE ISSUED . . .

If you would like to be notified when **ONCOLOGY OVERVIEWS, RECENT REVIEWS, NCI MONOGRAPHS**, and other cancer-related publications are issued, please complete the address information and mail to the appropriate address listed below. Completion of this form in no way obligates you to make a purchase.

### Superintendent of Documents Priority Announcement Request Form (N-569)

Yes, please put me on your free Priority Announcement List (N-569) to be notified when new **RECENT REVIEWS, ONCOLOGY OVERVIEWS, NCI MONOGRAPHS** and other cancer publications are issued.

If you are located in the U.S.,

mail this form to:  
Superintendent of Documents  
Mail Stop: SSOM  
Washington, DC 20401-9374  
FAX (202)275-0019

Name \_\_\_\_\_ 8/90

Organization \_\_\_\_\_

If you are located outside the U.S.,

return this form to:  
ICIC/NCI/NIH  
Bldg 82, Room 103  
Bethesda, MD 20892  
USA  
FAX (301)480-8105

Address \_\_\_\_\_

City, State, Zip Code, or Country \_\_\_\_\_







National Institutes of Health  
National Library of Medicine  
Bethesda MD 20894

## APPENDIX H

September 28, 1990

Dear Domestic MEDLARS User:

The NLM staff has recently completed its annual MEDLARS cost recovery analysis. The NLM Board of Regents reviewed the data on MEDLARS costs of access and current charges at its September 1990 meeting. Based on this review, the Board recommended changes in the charges for online access and offline processing to ensure that the Library will recover the full costs of access. As required in NLM's Memorandum of Understanding, this letter serves as notification of an increase in online and offline charges effective February 1, 1991. The chart showing the new NLM online pricing algorithm charges is printed on the reverse of this letter.

Changes to the online charges have been made in the following components of the algorithm:

1. Connect Hours, Online Citation Charge, and Computer Resources (Disk Accesses) for ELHILL;
2. Connect Hours, Search Statement Charge, Interaction Charge, and Online Character Charge for TOXNET; and
3. Connect Hour for PDQ.

Changes to the offline charges are an increase of \$0.05 per page and an increase of \$0.50 for each Automatic SDI search.

The charge for an average search calculated using the new algorithm will cost about \$2.00 when using GRATEFUL MED and somewhat more when using command language.

Thank you for searching the National Library of Medicine's databases to obtain needed information. The NLM staff are working to make the system easier and faster to use. If you have suggestions about improvements that would assist you, please let me know or contact MEDLARS Management at 1-800-638-8480.

Sincerely yours,

Lois Ann Colaianni  
Associate Director  
Library Operations

Effective February 1, 1991

NLM ONLINE PRICING ALGORITHM CHARGES TO DOMESTIC USERS 1/

File	Connect Charge (Per Hour)		Search Statement Charge	Online Citation Charge		Interaction Charge (Carriage Returns)		Computer Resources (Per 100)		Online Character Charge (Per 1,000)	
	Non-Prime	Prime		Non-Prime	Prime	Non-Prime	Prime	Non-Prime	Prime	Non-Prime	Prime
	<b>ELHILL COMPUTER</b>										
MEDLINE & Backfiles	\$ 6.10	\$ 8.85	\$ .02	\$ .01	\$ .02	\$ .01	\$ .07	\$ .14	\$ .08	\$ .12	
TOXLIT & TOXLIT65	37.10*	39.85*	.63*	.46*	.47*	.01	.07	.14	.08	.12	
TOXLINE & TOXLINE65	6.10	8.85	.02	.01	.02	.01	.07	.14	.08	.12	
CHEMLINE	37.10**	39.85**	.34**	.46**	.47**	.01	.07	.14	.08	.12	
INFORM	6.10	8.85	.02	-	-	.01	.07	.14	-	-	
All Other	6.10	8.85	.02	.01	.02	.01	.07	.14	.08	.12	
PDQ	25.00	35.00	-	-	-	-	-	-	-	-	
<b>TOXNET COMPUTER</b>											
All Files	9.50	14.15	.05	.06	-	-	.03	-	-	.11	.18

When calculated across the online algorithm, an average search costs about \$2.00 when using GRATEFUL MED and slightly more when using command language.

\*Includes royalty charges of \$31.00 per Connect Charge, \$0.61 per Search Statement, and \$0.45 per Online Citation Charge for TOXLIT and its Backfile, TOXLIT65.

\*\*Includes royalty charges of \$31.00 per Connect Charge, \$0.32 per Search Statement, and \$0.45 per Online Citation Charge for CHEMLINE.

NLM OFFLINE CHARGES TO DOMESTIC USERS 1/

<b>Pages</b>	<b>Per Page</b>
MEDLINE & Other Databases	\$0.30
TOXLIT & TOXLIT65	1.38 (includes \$1.08 royalty charge per page)
CHEMLINE	1.38 (includes \$1.08 royalty charge per page)
TOXNET Files	0.30
<b>Offsearches</b>	<b>Per File</b>
All Databases	\$1.00 (plus page charges)
<b>Automatic SDI Searches</b>	<b>Per Search</b>
SDILINE, AIDSLINE, AVLINE, CANCERLIT, CATLINE, HEALTH, POPLINE, TOXLINE	\$1.50 (plus page charges)
TOXLIT	5.50 (plus page charges; includes \$4.00 royalty charge)

Current online prime time is 10:00 a.m. to 5:00 p.m. Eastern Time, Monday through Friday. All other online time is non-prime time.

1/ Non-U.S. online users incur charges under the NLM online pricing algorithm and are charged \$3.00 extra on the connect charge (per hour) portion and \$0.10 extra per offline printed page.

## NLM ANNOUNCES CD-ROM PRICE CHANGES

The National Library of Medicine has recently announced a new fee schedule for CD-ROM products containing MEDLARS data. This new schedule has been sent to all NLM licensees that redistribute data on CD-ROM. Because it is likely that these fee changes may be passed on to users in terms of price increases or reductions, the Library believes users of its data should know what it charges the licensees. Since 1988, licensees that distributed data on CD-ROM had to pay an annual fee to obtain the data. They also were charged an annual fee of \$100.00 for each subscription to a CD-ROM product. When this price was established, nearly every CD-ROM was used by one individual on a single workstation. Many technological and telecommunications advances have occurred in this brief two-year period. Multiple simultaneous use, networked in-house access, and even remote access are now all possible. Furthermore, there is a growing market for personal use products. NLM has revised its fees to respond to the wide variation in use. The Library believes these charges will anticipate the use of CD-ROM for the next several years. These charges are consistent with NLM policy that the pricing of data be independent of the distribution media. The fees will go into effect for all new subscriptions and renewals as of February 1, 1991.

### I. Annual License Fee

This is an annual fee to obtain MEDLARS data. It is paid to NTIS once a year (or in quarterly installments) irrespective of the number or format of products distributed. This fee varies with the database based on the number of records received, and any other special formats or searches. Before obtaining any data, the recipient must sign an NLM License Agreement.

### II. Annual Subscription Fee

The fees for CD-ROM products are dependent on the type of intended use of the product. There are five categories of intended use. As with all NLM fees, there is a 25% surcharge for non-U.S. vendors and for U.S. vendors that distribute products outside the United States. The fees listed below are for domestic use.

#### A. Non-networked product for one individual's personal use.

ANNUAL FEE PER SUBSCRIPTION PAID BY LICENSEE: \$40.00

#### B. Non-networked product for use in one institution or organization for onsite access on a single workstation.

ANNUAL FEE PER SUBSCRIPTION PAID BY LICENSEE: \$100.00

- C. A networked product with two to five workstations for use by users of one institution or organization permitting two to five institutional users to access the product in one location or from remote workstations.

ANNUAL FEE PER SUBSCRIPTION PAID BY LICENSEE: \$1000.00

- D. A networked product with six or more workstations for use by the users of one institution or organization permitting access by the institution's users in one location or from remote workstations.

ANNUAL FEE PER SUBSCRIPTION PAID BY LICENSEE: 50% of the flat-rate fee charge for an equivalent subset leased by NLM.

- E. A networked product similar to that described in D. that permits access from users at other institutions.

ANNUAL FEE AND USER CHARGES PAID BY LICENSEE: An institution desirous of redistributing data in this fashion must sign an NLM License Agreement, pay 50% of the flat-rate fee for an equivalent subset leased by NLM for its own institution's users, and pay user charges for all use from the users at the other institutions.

Exceptions to the Annual Fee:

1. Technical Services databases are licensed at an annual flat rate. There are no additional fees for CD-ROM products containing technical services databases.
2. There are no annual subscription fees for non-networked products that include GRATEFUL MED to permit an online connection to NLM's online databases.
3. There are currently no annual subscription fees for AIDS products because of special government initiatives in this field.
4. The subscription fees for small MEDLARS databases, i.e., those with fewer than 200,000 records, are 50% of those for MEDLINE and other larger databases.

1991  
COMPUTER HOLIDAY SCHEDULE

Listed below is the computer holiday schedule for the ELHILL system of databases and PDQ for Christmas 1990 as well as the entire calendar year of 1991. The NLM computer is scheduled to be UP on every holiday listed below. The available NLM computer hours are shown as either guaranteed or non-guaranteed. Guaranteed means that the computer center is staffed and in the event of a computer shutdown, the computer will be restarted. Non-guaranteed means that the computer center is not staffed and in the event of an unexpected computer shutdown the system will not be restarted until 11:00 PM prior to the next NLM workday. Specific details on guaranteed versus non-guaranteed hours of operation for each holiday will be published prior to that holiday in the Technical Bulletin. "Observed" means U.S. Federal government observance of the holiday. Non-prime rates will be in effect on non-guaranteed holidays and on guaranteed holidays when the MEDLARS Management Service Desk is not staffed.

HOLIDAY	DATE	SYSTEM STATUS
Christmas Day (1990)	Tues, Dec 25	Non-guaranteed*
New Year's Day	Tues, Jan 1	Non-guaranteed*
Martin Luther King's Birthday (actual)	Tues, Jan 15	Guaranteed**
Martin Luther King's Birthday (observed)	Mon, Jan 21	Non-guaranteed*
President's Day	Mon, Feb 18	Non-guaranteed*
Memorial Day (observed)	Mon, May 27	Non-guaranteed*
Memorial Day (actual)	Thurs, May 30	Guaranteed**
Independence Day	Thurs, Jul 4	Non-guaranteed*
Labor Day	Mon, Sep 2	Non-guaranteed*
Columbus Day (observed)	Mon, Oct 14	Non-guaranteed*
Columbus Day (actual)	Sat, Oct 12	Guaranteed**
Veterans Day	Mon, Nov 11	Non-guaranteed*
Thanksgiving Day	Thurs, Nov 28	Non-guaranteed*
Christmas Day (1991)	Wed, Dec 25	Non-guaranteed*

\* Non-prime rates are in effect all day.

\*\*Prime rates are in effect from 10 AM - 5 PM ET.

The TOXNET computer status is always guaranteed. Non-prime rates will be in effect on all holidays marked with a single asterisk above.

DOCLINE will be available (non-guaranteed) on all U.S. Federal government holidays (observed) except Christmas Day, New Year's Day, Thanksgiving Day, Memorial Day, Independence Day, and Labor Day.

Notice of changes to this schedule and/or temporary changes in hours of operation will also appear as soon as any are identified in the online NEWS.



NLM Technical Bulletin Mailing List: Update/Purge

If you wish to continue receiving the NLM Technical Bulletin, we must receive this notification from you by January 15, 1991. If we do not hear from you, you will be automatically removed from the mailing list and in 1991 you will receive only the publication Gratefully Yours. The NLM Technical Bulletin will continue to be the major vehicle for introducing new databases and changes to existing databases to command language searchers. We urge to take the few minutes necessary to complete and return this form, if you wish to continue receiving this publication.

Please tape or paste your mailing label into the box and sign below.

Signature \_\_\_\_\_

If your name or address is different from the one shown on the mailing label please fill out the section below:

Name \_\_\_\_\_

User ID \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

Fold this form in thirds, tape it closed, affix postage and mail promptly.

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**Affix  
proper  
postage**

**MEDLARS MANAGEMENT SECTION  
NATIONAL LIBRARY OF MEDICINE  
8600 ROCKVILLE PIKE  
BETHESDA, MD 20894**

-----  
**... seal with tape**









**\*\*NOTICE\*\***

Please complete and return the form in Appendix K  
if you wish to continue receiving the *Technical Bulletin*.

If we do not receive this form by January 15, 1991,  
you will be dropped from our mailing list for this publication.

# The NLM

ISSN 0146-3055

JULY-AUGUST 1990

No. 255

# Technical Bulletin

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## NLM Online Users' Meeting - MLA 1990: NLM Remarks

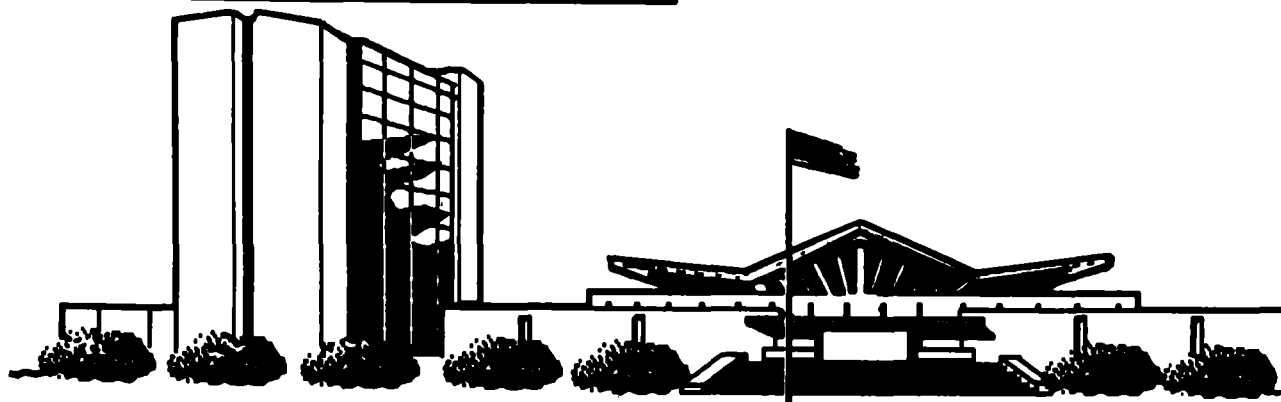
[Editor's note: In this issue, the first three articles are summaries of three presentations given at the NLM Online Users' Meeting, May 22, 1990, at the annual meeting of the Medical Library Association (MLA), held in Detroit, Michigan. They are followed on page 18 by an article of questions and answers from the same meeting.]

Sheldon Kotzin,  
Bibliographic Services Division, NLM

The Chief of the National Library of Medicine's Bibliographic Services Division, Sheldon Kotzin, addressed the participants of the NLM Online Users' Meeting. The following article is a synopsis of those remarks.

This is my ninth year participating in the Users' meeting and I am pleased to report that online usage of the MEDLARS® databases continues to grow. We now have 36,000 code holders and there will be more than five million searches run against the MEDLARS databases this year. You and your colleagues are helping to provide greater access to biomedical information than ever before.

Continued on page 10



MEDLARS <sup>®</sup> DATABASE	TOTAL RECORDS	DATES COVERED	DATE LAST UPDATED	LATEST UPDATE TAG
<b>ELHILL COMPUTER</b>				
AIDSDRUGS	85		14 JUL 90	
AIDSLINE**™	38,899	JAN 80-OCT 90	11 AUG 90	9010(EM)
AIDSTRIALS	267		21 JUL 90	
AVLINE <sup>®</sup>	20,836	THROUGH 1990	10 AUG 90	
BIOETHICS <sup>®</sup>	30,502	JAN 73-JUL 90	04 AUG 90	9008(EM)
CANCERLIT <sup>®</sup>	749,017	JAN 63-AUG 90	04 AUG 90	9008(EM)
CATLINE <sup>®</sup>	666,914	THROUGH 1990	10 AUG 90	
CHEMID	183,665		28 JUL 90	
CHEMLINE <sup>®</sup>	963,507		10 JUL 90	9005(EM)
CLINPROT <sup>®</sup>	7,824		21 JUL 90	9007(EM)
DENTALPROJ™	784		28 FEB 90	
DIRLINE <sup>®</sup>	17,574		28 JUL 90	
DOCUSER <sup>®</sup>	12,227		11 AUG 90	
HEALTH	513,453	JAN 75-SEP 90	04 AUG 90	9009(EM)
HISTLINE <sup>®</sup>	94,250		04 AUG 90	9008(EM)
MEDLINE* <sup>®</sup>	838,278	JAN 88-OCT 90	11 AUG 90	9010(EM)
MED86	651,846	JAN 86-DEC 87	26 MAY 90	
MED83	890,553	JAN 83-DEC 85	16 JUN 90	
MED80	803,372	JAN 80-DEC 82	04 AUG 90	
MED77	775,781	JAN 77-DEC 79	09 DEC 89	
MED72	1,175,516	JAN 72-DEC 76	09 JUN 90	
MED66	1,310,458	JAN 66-DEC 71	02 JUN 90	
MESH VOC <sup>®</sup>	73,336	1990	11 AUG 90	
NAME AUTH <sup>®</sup>	349,427		04 AUG 90	
PDQ <sup>®</sup>		THRU AUG 90	01 AUG 90	
POPLINE	175,830	1970-JUL 90	07 JUL 90	9007(EM)
SDILINE <sup>®</sup>	27,166	SEP 90	28 JUL 90	9009(EM)
SERLINE <sup>®</sup>	75,115	1990	14 AUG 90	
TOXLINE <sup>®</sup>	844,708	1981-1990	11 AUG 90	9008(EM)
TOXLINE65	707,374	PRE 1965-1980	31 MAR 90	
TOXLIT <sup>®</sup>	850,339	1981-1990	11 AUG 90	9008(EM)
TOXLIT65	586,405	1965-1980	01 SEP 87	

\*N.B. FILE IS UPDATED WEEKLY; THIS IS PART 2 OF 4.

\*\*N.B. FILE IS UPDATED WEEKLY; THIS IS PART 2 OF 5.

<sup>®</sup>  
**TOXNET COMPUTER**

CCRIS	2,190		13 MAR 90
DART™	3,016		10 AUG 90
DBIR <sup>®</sup>	1,455		02 JUL 90
EMICBACK	71,871		08 JUL 90
ETICBACK	49,597		08 JUL 90
HSDB <sup>®</sup>	4,211		07 AUG 90
IRIS	412		10 AUG 90
RTECS	104,323		16 JUL 90
TRI87	76,737		20 NOV 89
TRI88	80,228		29 MAY 90

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 Bethesda, Maryland 20894

## Technical Notes

Whenever applicable, the heading of each Technical Note includes a reference to the section of the Online Services Reference Manual 1988 that is considered most relevant to the item being discussed, e.g., (Manual 4.7.2). Users should keep in mind that the item may pertain to other sections as well.

### HOLIDAY SCHEDULES

The following is the MEDLARS computer schedule for the Labor Day and Columbus Day holidays:

#### LABOR DAY HOLIDAY SCHEDULE

##### MONDAY SEPT. 3 OBSERVANCE

System	Rates/Status
ELHILL	non-prime non-guaranteed
TOXNET	non-prime guaranteed
DOCLINE	not available

#### Service Desks

MMS	not staffed
DOCLINE	not staffed

#### COLUMBUS DAY HOLIDAY SCHEDULE

##### MONDAY OCT. 8 OBSERVANCE

System	Rates/Status
ELHILL	non-prime non-guaranteed
TOXNET	non-prime guaranteed
DOCLINE	not applicable non-guaranteed

#### Service Desks

MMS	not staffed
DOCLINE	not staffed

#### FRIDAY OCT. 12 ACTUAL HOLIDAY

System	Rates/Status
ELHILL	regular guaranteed
TOXNET	regular guaranteed
DOCLINE	not applicable guaranteed

#### Service Desks

MMS	staffed
DOCLINE	staffed

#### MESH TOOLS, 1991

The following 1991 MeSH tools may now be ordered from the National Technical Information Service (NTIS).

#### Medical Subject Headings -- Annotated Alphabetic List, 1991

PB91-100008/GBB  
\$35.00, U.S., Canada and Mexico  
(\$70.00 Non U.S.);  
microfiche, \$18.50 (\$37.00 Non U.S.)

#### Medical Subject Headings-Tree Structures, 1991

PB91-100016/GBB  
\$31.00, U.S., Canada and Mexico  
(\$62.00 Non U.S.);  
microfiche, \$12.00 (\$24.00 Non U.S.)

Permuted Medical Subject Headings, 1991

PB91-100024/GBB  
\$28.00, U.S., Canada and Mexico  
(\$56.00 Non U.S.);  
microfiche, \$12.00 (\$24.00 Non U.S.)

Orders should be sent to:

National Technical Information Service (NTIS)  
U.S. Department of Commerce  
5285 Port Royal Road  
Springfield, VA 22161  
(703) 487-4650 (for telephone orders from  
individuals/organizations with an NTIS deposit  
account or major credit card)

An NTIS order form is included as Appendix D for your convenience. Remittance should be sent with all mail orders. Remember to add \$3.00 (\$4.00 non-U.S.) shipping/handling charge per order, not per item ordered.

**TRI (TOXIC CHEMICAL RELEASE INVENTORY)  
DEMO DISK**

The National Library of Medicine (NLM) is pleased to announce the new TRI DEMO Disk. TRI (Toxic Chemical Release Inventory) is a series of files on the NLM's TOXNET system containing data, supplied by the Environmental Protection Agency, on releases of toxic chemicals to the environment. The TRI DEMO Disk is primarily designed for novice searchers who are not familiar with searching the NLM's TOXNET System and the TRI files. It is available on 5 1/4" floppy disk and runs on IBM-PC, PC-XT, PC-AT and fully compatible computers. It requires 512K RAM memory, one disk drive, and DOS 2.0 or higher. If you would like to receive a free copy, please send a self-addressed label (no postage necessary) along with a request for the disk to:

TRI Representative  
Specialized Information Services  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894

**TIP FILES DEMO DISK, VERSION 2.0**

The National Library of Medicine has recently released the second version of the TIP Files Demo Disk. It is an interactive, microcomputer-based demonstration of the online files supported by the Library's Toxicology Information Program (CHEMLINE, ChemID, TOXLINE, TOXLIT, DIRLINE, HSDB, RTECS, CCRIS, EMIC/EMICBACK, DART/ETICBACK, TRI and IRIS). It contains a brief description and sample searches for each file. This version of the DEMO DISK includes an AUTOMATIC DEMO feature, allowing for automatic demonstration of the entire program or of selected files.

The Demo Disk is developed under PILOTplus<sup>®</sup> using the NLM LEARN<sup>™</sup> Programmer. It runs on IBM-PC, PC-XT, PC-AT, PS/2, and fully compatible computers. It requires 512K RAM memory, one disk drive, DOS 2.0 or higher and supports most monochrome, color graphics, enhanced color graphics, and visual graphics displays.

The Demo Disk can be purchased from NTIS (Product No. PB 90-502246) for \$15 plus a \$3 handling charge. Please refer to the Product No. when ordering the Demo Disk. The address and phone number for NTIS are:

National Technical Information Service  
U.S. Department of Commerce  
5285 Port Royal Road  
Springfield, VA 22161  
(703) 487-4650

Please direct any questions or comments on the Demo Disk to:

Specialized Information Services  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894  
(301) 496-1131

**IRIS REFERENCE GUIDE**

IRIS (Integrated Risk Information System) is TOXNET's version of an EPA (Environmental



Protection Agency) file containing data on health risk assessment and related areas. The IRIS Reference Guide is now available. It contains background information on the risk assessment process, the IRIS Unit Record and notes on the IRIS/TOXNET file structure, complete lists of IRIS chemicals and IRIS data element definitions, search examples, logon instructions, etc. To request your free copy, please send a self-addressed mailing label to:

IRIS Representative  
Specialized Information Services  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894

#### CLINPROT INDEX TERM LISTING

The CLINPROT Index Term listing for July 1990 is now available. It may be requested by writing to the National Cancer Institute. Please include a self-addressed label with your request. No return postage is necessary. Please send requests to:

International Cancer Research Data Bank Branch  
National Cancer Institute  
R.A. Bloch Building (82), Room 103  
Bethesda, MD 20892

#### MAXIMUM LINE LENGTH (Manual 4.6.4)

The maximum number of characters (including spaces) allowed for each line of a search statement has been raised to 132 characters. A line may wrap around up to 132 characters and still be understood by the ELHILL software. If 133 characters or more are entered per line the message "LINE TOO LONG - DELETED" will result. You then need to separate that search line into 2 or more search statements, or end the line with a Boolean AND or OR to continue that one search statement. Of course, the width of your screen or paper may not allow this maximum number of characters.

The first example illustrates a line length of 132 characters which is understood by the ELHILL software.

The second example illustrates a line length of 133 characters; the message "LINE TOO LONG-DELETED" is received. We then reenter the search statement and continue the search statement on a second line by using a Boolean operator.

#### Example 1 - 132 characters

SS 1 /C?  
USER:  
chaplaincy service, hospital or social work  
department, hospital or medical records department,  
hospital or dental service, hospital  
PROG:  
SS (1) PSTG (135)

#### Example 2 - 133 characters

SS 1 /C?  
USER:  
chaplaincy service, hospital or social work  
department, hospital or medical records department,  
hospital or nursing service, hospital  
LINE TOO LONG - DELETED

USER:  
chaplaincy service, hospital or social work  
department, hospital or medical records department,  
hospital or  
PROG:  
CNT 1

USER:  
nursing service, hospital  
PROG:  
SS (1) PSTG (742)

#### AUTOMATIC SDI PRINTOUT REMINDER

The Automatic SDI printouts for SDILINE (SDILINE is the file containing the current month of MEDLINE citations) are mailed within 10 days after SDILINE is updated. Refer to the October 1989 *Technical Bulletin*, Appendix C for the SDILINE database update schedule. If you do not receive your SDILINE Automatic SDIs in a timely fashion contact the MEDLARS Management Section.

**MHF DATA ELEMENT ADDED TO DART**

A new data element called MeSH Heading Fragment (MHF) has been added to the DART (Developmental and Reproductive Toxicology) database in TOXNET. Now, MeSH headings can be searched as they appear in Annotated MeSH - 1990 using the (MH) qualifier, or as individual words with the (MHF) qualifier. For example:

(MH) CLEFT PALATE will retrieve records indexed with the MeSH heading Cleft Palate.

(MHF) CLEFT will retrieve records indexed with any MeSH heading that includes the word CLEFT, such as Cleft Palate and Cleft Lip.

DART is a bibliographic database that continues the ETICBACK database. DART now contains over 2,500 records and is updated monthly. Many records come from MEDLINE and are enhanced with additional chemical index terms and Chemical Abstract Service Registry Numbers (CAS RNs). The remaining records are created especially for DART and, like the MEDLINE records, these records contain bibliographic citations, abstracts, MeSH, chemical names, and CAS RNs. To search only for the records created especially for DART, enter TER (SI) at a USER prompt.

**EMICBACK AND ETICBACK UPDATED**

Both the EMICBACK and ETICBACK databases in TOXNET were updated in July. Most of the new records added to EMICBACK and ETICBACK cover literature published from 1987-1989. 3,249 new records were added to ETICBACK and 2,096 records were updated. 3,896 new records were added to EMICBACK and 5,181 records were updated. To access these new and changed records, enter 900702 (date) at a USER prompt in either EMICBACK or ETICBACK.

**ERRORS ON GM5 POCKET CARD**

The GRATEFUL MED pocket card enclosed with the June 1990 *Technical Bulletin* has 2 errors on panel one "Shortcuts from DOS:". A corrected version appears in the column to the right. Note the following changes in the last two shortcuts on the panel:

To go straight to Direct Searching has been changed to To go straight to MEDLINE using direct searching mode:

and in the last DOS shortcut

search/m has been changed to search/mn.

We plan to send a corrected pocket card with the September-October issue.

**Shortcuts from DOS:**

To go straight to the MEDLINE® INPUT screen: **search/m**

To go straight to the Other Databases screen: **search/o**

To go straight to MEDLINE using direct searching mode: **search/d**

To go straight to the MEDLINE INPUT screen and download all retrieval without stopping: **search/mn**

Other shortcuts can be found in the *Hints and Pointers* section of the *User's Guide*.

**CITY OF PUBLICATION (PL) IN SERLINE**

Effective with the July update of SERLINE the two-letter Postal Service abbreviation for the state will be added to all U.S. cities in the City of Publication (PL) field. Previously state abbreviations were used in this field for all but the major cities of New York, Boston, Philadelphia, Baltimore, Washington, Chicago, Detroit, St. Louis, San Francisco, Los Angeles, and Seattle. This practice sometimes resulted in inconsistent application of state identification for other U.S. cities. The addition of a state abbreviation for all U.S. cities makes the PL field more uniform and predictable.

## CHANGE TO ANNOTATION IN THE ANNOTATED MESH

The definition of the MeSH heading MOLECULAR SEQUENCE DATA changed one month after indexing for 1990 began. Since the definition change, this heading has been assigned to articles on base sequences containing 9 or more nucleotides rather than 50 or more nucleotides and 2 or more carbohydrate units rather than 3 or more carbohydrate units. The criterion for amino acid sequences has not changed. Please make the following changes to the annotation for this heading in the Annotated MeSH, 1990.

"50 or more nucleotides" should be changed to "9 or more nucleotides".

"3 or more carbohydrate units" should be changed to "2 or more carbohydrate units".

## VOLUME NUMBERING FOR FEMS TITLES

NLM has received a number of inquiries about the volume numbering in MEDLINE citations for several titles published for the Federation of Microbiological Societies. FEMS Microbiology Letters, FEMS Microbiology Reviews, and FEMS Microbiology Immunology are each published under two numbering schemes. They carry volume and issue numbering that is continuous for these three titles and the title FEMS Microbiology Ecology which is not indexed by NLM, as well as a numbering scheme that is specific to each section. FEMS Microbiology Letters, FEMS Microbiology Reviews, and FEMS Microbiology Immunology are cited in MEDLINE using the volume and issue numbering that is specific to each respective title. NLM does not include the letter prefix for the volume number in the citation. Use of the specific numbering schemes keeps the numbering consecutive for each section that is indexed and readily identifies any missing issues of the individual titles.

## CHANGE IN TITLE ABBREVIATION

The title entry for the JEN Journal of Emergency Nursing, indexed in MEDLINE and HEALTH, has changed to Journal of Emergency Nursing resulting in a title abbreviation change from JEN to J Emerg Nurs. All citations with an Entry Month (EM) of 9007 and later

will have the new title abbreviation. The retrospective records will be changed during the 1990 year-end file updates. The searching implications of this are that if you are searching by journal title for this nursing journal, until the completion of year-end file updates in mid-December, you must OR the two title abbreviations together (i.e., (ta) JEN or J Emerg Nurs).

## NLM TAPE DISTRIBUTION FORMAT CHANGES

The National Library of Medicine is standardizing the format in which we release databases in machine-readable form. MEDLINE subset licensees have been receiving their data in Standard Distribution Format (SDF). Beginning with 1992 data, the format for MEDLINE and MeSH Vocabulary File data for existing subset tape licensees will be changed to ELHILL Unit Record Format (EURF). MeSH in MARC format and 80-character card image format will also remain available. New MEDLINE licensees will also receive data in EURF.

SDF was developed in 1984 when the NLM subset program began. At that time, the projected subset audience was using hardware technology that did not lend itself to processing EURF, the existing tape distribution format, easily. Therefore, NLM developed SDF, a simplified version of EURF thought to be more suited to the minicomputer environment. As time has gone by and technology has changed, the need for this simplified format has decreased. The NLM is discontinuing SDF at the end of 1991 and will begin to ship all MEDLINE data in EURF at that time. All database licensees who receive the complete MEDLINE file have been receiving this format for years. NLM wants to consolidate its tape distribution programs and provide a standardized format for which we can offer better support.

All current MEDLINE subset licensees have been sent a letter advising them of this decision. Potential licensees who are reviewing previously received NLM tape distribution material should be aware that SDF is no longer offered as a tape distribution format.

## NTIS DELINQUENT DEPOSIT ACCOUNTS

The National Technical Information Service (NTIS) will mail all MEDLARS users with delinquent deposit

accounts (i.e., accounts that are overdrawn more than 60 days), a letter requesting additional funds. If NTIS does not receive payment within 30 days the deposit account will be closed and all subsequent MEDLARS charges will be handled by monthly invoices.

In order to keep an NTIS deposit account active, please insure your deposit account maintains a positive balance by sending sufficient funds to NTIS before a negative balance is reached.

### INTERLIBRARY LOAN REQUESTS FOR AIDS MEETING ABSTRACTS

Now that all of the meeting abstracts from the Fifth International Conference on AIDS have been added to AIDSLINE, we are receiving a number of interlibrary loan requests for these meeting abstracts. We would like to remind requesters that the full text of these meeting abstracts is online with the exception of those abstracts containing tables. The notation 'TABULAR DATA, SEE ABSTRACT VOLUME' is included in the Abstract (AB) field if tables present in the hardcopy are not included online. These are probably the only abstracts you would want to request through interlibrary loan.

By printing the entire meeting abstract on line, you will realize a substantial savings. One citation with abstract printed from AIDSLINE will cost about \$0.40; the same abstract requested via interlibrary loan may cost you up to \$8.00. Using AIDSLINE will also give you the abstract immediately.

The citation below shows an AIDSLINE meeting abstract having the 'TABULAR DATA' notation which means more information is present in the hardcopy than is available online.

1

SI - ICA5/00294489

AU - Marichal BJ

AU - Jenaer MC

TI - A useful immunotherapy in AIDS.

AB - In a clinical study made in Africa upon 90

patients - AIDS or ARC, 26 had at least one year of immunotherapy at the end of 1988. This immunotherapy is using different products: nucleic acids, cyclosporin and an anti heavy gamma chain. The particularity of this treatment (Tt) is the use of very small doses of each product. The results are compared with those of a group without any immunotherapy. In both groups, the O.I. are treated by the classical medication. No one patient in the study is or has been on AZT, or other specific anti AIDS medication. The results are: **TABULAR DATA, SEE ABSTRACT VOLUME.** (1) Frequency of diarrhea, fever, infections in %. (2) In % expressed maximal relative enhancement of T4 and T4/T8 (3) Middle evolution of the weight, in Kg/year. (4) Group added in order to compare the biological data with those of the AZT studies. When compared with the clinical studies, on AZT, the biological results of the European group are reaching the same level of efficacy. Key words: immunotherapy, small doses, cyclosporin, nucleic acids, anti heavy gamma chain.

SO - Int Conf AIDS 1989 Jun 4-9;5:565 (abstract no. M.C.P.139)

**In order to improve service at the MEDLARS Service Desk, a new phone system has been installed. New features include queuing and music while on hold. Now all incoming calls to either 1-800-638-8480 or 301-496-6193 are routed into a single queue. The new system should help ease the past problems of constant busy signals, the repetitious requests for callers to please hold, and the frequent interruption of service calls to answer other service phone lines. A recorder is still used after hours. We hope these changes result in a noticeable improvement in service to you.**

SEARCHING NOTE

MeSH headings that end with the character string of:

a space followed by 2 characters

such as:

CHROMOSOMES, HUMAN, PAIR 16

cannot be selected from a NEIGHBOR (NBR) or NBRDET display due to a programming assumption in the ELHILL NEIGHBOR software. Because the MeSH heading ends with a 'space 2 characters' the software expects the two characters to be a subheading and automatically inserts a slash (/) for display purposes in the NBR list. The presence of the / prevents that MeSH heading from being selected from a NBR display. Such headings, however, can be searched directly (without the slash) exactly as they appear in the Annotated MeSH.

In addition, MeSH headings which are longer than 36 characters are truncated by the ELHILL software at the 36th character. If the resulting heading ends in this pattern of 'space 2 characters', then a slash (/) is automatically inserted by the software in the NBR display. For example, the MeSH heading PREGNANCY-ASSOCIATED ALPHA PLASMA PROTEIN becomes PREGNANCY-ASSOCIATED ALPHA PLASMA/PR in the MEDLINE index. This heading cannot be selected from the NBR display. It can be searched directly (without the slash); to search for these headings, enter only the first 36 characters.

Appendix A is a list of the 84 MeSH headings which are affected. The example below shows how a heading can be searched directly but cannot be selected from a NBR display.

```
SS 1/C?
USER:
nbr chromosomes, human, pair 16
PROG:
```

SELECT #	POSTINGS	TERM
1	343	CHROMOSOMES, HUMAN, PAIR/14 (MH)
2	134	CHROMOSOMES, HUMAN, PAIR/15 (MH)

3	183	CHROMOSOMES, HUMAN, PAIR/16 (MH)
4	247	CHROMOSOMES, HUMAN, PAIR/17 (MH)
5	193	CHROMOSOMES, HUMAN, PAIR/18 (MH)

UP N OR DOWN N OR ENTER A SELECT COMMAND.

```
USER:
sel 3
PROG:
NP (CHROMOSOMES, HUMAN, PAIR/16
(MH))
```

```
SS 1/C?
USER:
chromosomes, human, pair 16
PROG:
SS (1) PSTG (183)
```

```
SS 2/C?
USER:
prt 1 include mh
PROG:
```

```
1
UI - 90274691
AU - Weitberg AB
AU - Corvese D
TI - Translocation of chromosomes 16 and 18 in
oxygen radical-transformed human lung
fibroblasts.
MH - Cell Line, Transformed
MH - Cell Transformation, Neoplastic/
CHEMICALLY INDUCED/ *GENETICS
MH - *Chromosomes, Human, Pair 16
MH - *Chromosomes, Human, Pair 18
MH - Fibroblasts
MH - Free Radicals
MH - Genetic Markers
MH - Human
MH - Karyotyping
MH - Lung
MH - Oxygen/*TOXICITY
MH - *Translocation (Genetics)
SO - Biochem Biophys Res Commun 1990 May 31;
169(1):70-4
```

**NLM Remarks**

Continued from page 1

The year ahead is also exciting because NLM is moving closer to implementation of the LOANSOME DOC feature of GRATEFUL MED. We will be spending a considerable amount of time at this meeting explaining DOCLINE changes and plans for LOANSOME DOC. On the panel today are Carolyn Tilley, Head of the MEDLARS Management Section; Janet Zipser, Unit Head for Training, MEDLARS Management Section; and Peri Schuyler, Head of the MeSH Section. They are joined by Rosalyn Leiderman, Head of the Systems Unit in the Collection Access Section, and Martha Fishel, Deputy Chief of the Public Services Division.

There is a lot of good news from NLM this year. More than 22,000 copies of GRATEFUL MED have been purchased and many of the persons attending this session are to be thanked for helping NLM reach out to so many health professionals and students. The delays in issuing Version 5.0 of GRATEFUL MED were the result of the discovery of a significant bug during testing and a further slow-down in the production process. However, Version 5.0 has been mailed and we are quite proud of the resulting product. There are many improvements to the MeSH features, a new troubleshooting guide, new "How To" tutorial disks, and much more. For more details on the improved capabilities of Version 5.0 see the articles on pages 6-14 in the February 1990 *Technical Bulletin*.

Since our meeting last year we have added several new databases; many of them developed in the Library's Specialized Information Services Division:

- IRIS (Integrated Risk Information System) contains EPA health risk and regulatory information on 400 chemicals.
- ChemID is a non-royalty file designed to identify chemicals and point users towards the databases in ELHILL and TOXNET that contain data for the subject.
- Late in 1989 we added AIDSTRIALS and AIDSDRUGS providing information on AIDS-related clinical trials and descriptive information on drugs used in these trials.
- DENTALPROJ contains summaries of dental research projects supported by NIH and other government agencies. This year, by the way, we are doubling our efforts to reach out to the

dental community to promote access to MEDLARS databases.

- The Toxic Release Inventory (TRI) contains information on releases of toxic chemicals into the environment.
- EMICBACK, the file from the Environmental Mutagen Information Center contains 67,000 citations to literature published from 1950-88. Recently, EMIC was superseded by DART (the database on Developmental and Reproductive Toxicology) containing references to literature on chemical, physical, and biological agents that may cause birth defects.
- Lastly, we expect a new biotechnology information database called BIOSEEK to be available later this year. [Editor's note: BIOSEEK is now expected in the spring of 1991.] It will contain citations and abstracts to biotechnology journals not covered in MEDLINE.

I encourage you to become familiar with all these new files.

Other new features from MEDLARS include:

- Beginning in June, MEDLINE will be updated weekly instead of semi-monthly. Weekly updates will occur January through October with November and December remaining monthly due to year-end processing activities (when MEDLINE and other databases are rebuilt with the new MeSH vocabulary).
- In an effort to improve the MEDLARS Management Service Desk, we have provided an additional avenue of access to the MEDLARS Service Desk through a menu choice in the general NLM toll free number 1-800-272-4787, expanded the MEDLARS Service Desk toll-free number 1-800-638-8480 to residents of Maryland, and added a queuing system to the toll-free lines. We are also looking at extending Service Desk hours until the late evening during weekdays and have plans to upgrade our phone equipment at the Service Desk. [Editor's note: See the Technical Note on page 9 for more about the new phone system.] We must be doing something right; we are responding to over 200 calls each weekday in 1990. This comes to about 55,000 answered calls per year.

- Master online accounts, announced last year at this meeting, have been successful. One hundred fifteen institutions get billed centrally for almost 1000 user codes. Now, we are experimenting with flat-rate online pricing and should have more to say about this in the year ahead.
- We have produced a GRATEFUL MED demo disk (IBM and Mac versions) and urge you to pick some up at the NLM exhibit booth. If you want extra disks, contact the MEDLARS Management Section. The disk provides an overview of GRATEFUL MED, and forms for ordering GRATEFUL MED and getting a code are included. These forms can be printed to provide a ready supply of code application forms.
- The next Mac GRATEFUL MED release is expected late this fall.
- The two seminars for GRATEFUL MED trainers have been quite successful. Our second one was this week in Detroit with over 100 attendees. We would like to have one or two more next year. Please remember that non-billed training codes are available for those training GRATEFUL MED users.
- In trying to be responsive to your requests, we have implemented an automatic ALL response to the online EXPLODE command. During a test period we found no increase in costs and overwhelming user satisfaction with this feature. Now you can retrieve against all trees in which the exploded term appears or you can still limit an EXPLODE to a specific tree if desired.
- Author affiliations are now being carried in MEDLINE in the Address (AD) field for Special List Health, Dental and Nursing journals. [Editor's note: We are currently working on making the Address field Text Word searchable.]
- With the 9007 Entry Month (EM) update done in May 1990, we will add about 2,000 meeting abstracts from the 5th International Conference on AIDS into AIDSLINE. A total of 5,500 abstracts will be added and by fall of 1990, we hope to add the abstracts from the 6th meeting to be held next month in San Francisco. Also, in 1990, NLM plans to add AIDS citations from CATLINE, AVLINE, and BIOETHICS to AIDSLINE.
- The new edition of the MEDTUTOR PC training disk is available from NTIS and orders are being taken. With the addition of MEDTUTOR and other training software, NLM will discontinue the \*\*MEDLEARN\*\* CAI mainframe training program on or about July 1 of this year.
- The Basics of Searching MEDLINE self-instruction training manual has been updated and is available from NTIS.
- There are two upcoming MeSH-related changes I also wish to call to your attention. With 1991 MeSH, the minor descriptor (i.e., See Under) headings will be eliminated. All present minor descriptors will be elevated to "main" or major headings. This change will have virtually no effect on indexers and searchers who have always been able to use these terms for indexing and online retrieval. It will impact both cataloging practice and distribution of CATLINE records where minor headings were stripped from CATLINE records for tape distribution. Effective in 1991 all headings will be available to all users.
- Also in 1991 a new feature will be available to assist Index Medicus and GRATEFUL MED users in locating additional headings under which relevant citations may be found. The Consider Also (CX) field will be added to records for general terms to serve as a pointer to other terms, primarily those with Greek or Latin roots. For example, under KIDNEY might be "consider also" terms beginning with RENAL and NEPHR. This information will be incorporated into GRATEFUL MED Version 6.0.
- Finally, some of you might have noticed an announcement in a recent *Technical Bulletin* regarding a new companion publication called *Gratefully Yours*. We have heard from searchers for years that many users desired a less-technical newsletter from NLM. As a result NLM has developed *Gratefully Yours* for those who search MEDLINE primarily using GRATEFUL MED. Our plans are to offer all users *Gratefully Yours* and the *Technical Bulletin* should they want it. New users who wish to receive the *Technical Bulletin* on a

regular basis will have an opportunity each year to indicate they want to do so; otherwise, they will receive only *Gratefully Yours*. The *Technical Bulletin* will continue to feature articles on all NLM databases and focus on news and reports of importance to librarians. We hope you like this new arrangement.

If you have comments, complaints, questions or compliments, please let us know by communicating with the MEDLARS Management Section so we can continue to serve you and better meet your information needs.



# NLM Online Users' Meeting - MLA 1990: DOCLINE Presentation

Rosalyn M. Leiderman  
Collection Access Section, NLM

DOCLINE is the National Library of Medicine's automated interlibrary loan request and referral system. The DOCLINE Update included information concerning the system's growth, some system performance tuning, accomplishments since the last MLA, and some future developments. Printed copies of the presentation slides for both DOCLINE and LOANSOME DOC may be obtained from the Regional Medical Library (RML) DOCLINE Coordinator in each region.

## System Growth

At the end of April 1990, there were 1,909 DOCLINE libraries. That figure represents a 7% increase in libraries participating in DOCLINE since April 1989. The total numbers of DOCLINE libraries in each region as of April 1990 were:

- Region 1 - 539
- Region 2 - 298
- Region 3 - 380
- Region 4 - 210
- Region 5 - 102
- Region 6 - 108
- Region 7 - 272

Regions 1, 2 and 7 account for 72% of the increase in new DOCLINE participants for this year. In Fiscal Year 1989 (October 1988-September 1989) there were over 1.6 million requests entered in DOCLINE. So far this fiscal year, there have been over 950,000 requests input into DOCLINE. NLM projects that there will be a total of 1.9 million requests entered in DOCLINE for this fiscal year.

During February 1990 and March 1990 there was a significant increase in the number of transactions input daily. In February 1989 the average number of requests input daily was 7,023 and in February 1990 the average number of requests input daily was 8,326. This represents an increase of 19%. Similarly, in March 1989 the average number of requests input daily was 6,878 and in March 1990 the average number of requests input daily was 8,360. This represents an increase of 22%. On March 5, 1990 there were 10,377 requests entered in

DOCLINE. This is the largest number of transactions entered in one day in the system!

During February and March 1990 users were experiencing some difficulties accessing the system. The DOCLINE Service Desk appreciates the many phone calls informing us of system problems as well as the documentation sent identifying specific problems. We believe that the Telenet problems have been corrected. Users are encouraged to continue calling or writing the DOCLINE Service Desk whenever there are problems with DOCLINE access.

## System Performance Tuning

Recent hardware upgrades, system tuning, and software modifications have resulted in better response time and improved performance throughout the DOCLINE system. In February 1990 the maximum number of simultaneous users was increased from 65 to 85. DOCLINE users should now rarely encounter the message that there are already the maximum number of users logged on when they try to access DOCLINE.

During February and March of this year many users encountered logon delays. This was not a problem with the DOCLINE system. These delays were caused by changes to procedures for logging on to the NLM computer system. NLM is aware that users may occasionally encounter DOCLINE access delays for up to one minute. However, the Computer Center has indicated that this will happen infrequently. As these new procedures are implemented, users may occasionally encounter logon delays up to one minute. Users who encounter a logon delay, should remain connected while the logon procedures continue.

Thanks to the participation of DOCLINE users, NLM was able to resolve the "Possible Data Loss" message users encountered earlier this year while accessing DOCLINE through Telenet. The DOCLINE Service Desk was opened on April 2-3, 1990 to collect information on the specific Telenet line users were connected to during their DOCLINE session. The Service Desk received 141 calls and with this information NLM and US Sprint (Telenet) together resolved the problem.

## Accomplishments

In October 1989 NLM implemented the second phase of the message module. NLM can now send an online DOCLINE message to a DOCLINE library. This gives NLM the capability of responding more quickly to users with information concerning requests that are not

available in the collection. By the end of March over 1900 messages relating to ILL (interlibrary loan) requests had been sent. In February 1990 CANCEL was implemented. This allows a borrowing institution to cancel a request after it has been entered into the system if it has not been received by a potential lender. During February 1990 and March 1990 there were an average of 89 requests cancelled per day and an average of 12 requests were cancelled on reroute.

In April 1990 an information sheet was mailed to all DOCLINE libraries announcing that the American Hospital Association's (AHA) holdings are in SERHOLD. DOCLINE libraries are encouraged to add AHA to their routing tables because the AHA Resource Center acquires the journals it currently indexes for the HEALTH file and NLM does not own all of these titles. NLM hopes to complete updating the routing tables by the end of the summer.

#### Enhancements

NLM is developing the capability for users to request FAX as a method of delivery when inputting a request in DOCLINE. When FAX is selected as the method of delivery, the request will utilize the library's existing routing table. The request will route ONLY to those libraries in the routing table that have indicated in DOCUSER that they provide FAX ILL service. NLM's FAX service will continue to be on an emergency basis. In order to implement the FAX capability for the network, NLM will need to collect current information from users on whether or not they routinely provide FAX ILL service and their FAX phone number. This information will then be updated in the DOCUSER database. This effort will be coordinated with the Regional Medical Libraries and DOCLINE libraries will be receiving additional information very soon. After the information has been updated in DOCUSER, each

region will be notified through a broadcast message on DOCLINE that they may begin using FAX. When the LOANSOME DOC pilot begins, DOCLINE libraries will notice that the FAX capability will be available in DOCLINE. Do not use the FAX option until the region has been notified that the DOCUSER records have been updated, since the request will not route. During this time, please continue to use the COMMENT field to request FAX service. However, if a DOCLINE library receives a FAX request it may be updated in LEND as a filled FAX request.

Also, when the LOANSOME DOC pilot begins, all DOCLINE libraries will have a new feature in STATUS called \*MAXPRINT or \*MP. This will allow DOCLINE libraries who wish to do so, to specify the number of requests that are displayed in STATUS. Currently, the system displays all requests, beginning with the most current. For example, if you have requested five as the number of items to be displayed using the \*MP command, after the five requests have been displayed, DOCLINE will prompt with CONTINUE PRINTING (Y,N) [Y], where Y is the default value. If you press enter, the system will go on to display the next five items. If you press N, no more items will be displayed. If you type \*MP 10, you will change the size of the set to be displayed to 10. In STATUS, at any prompt, users will be able to issue the command \*MP to specify the size of the set to be displayed. Users may also change this number at any time while they are in STATUS. Users who wish to see all of their requests will access STATUS the same way they do now.

Other enhancements to DOCLINE such as STOP ROUTING will continue to be developed after the LOANSOME DOC pilot test begins. Some enhancements to the system have been placed on hold while LOANSOME DOC is being developed.

# NLM Online Users' Meeting - MLA 1990: LOANSOME DOC Briefing

Martha R. Fishel  
Public Services Division, NLM

## Overview

At the NLM Online Users' Meeting in Detroit, Martha Fishel's presentation of LOANSOME DOC provided the attendees with an overview and description of NLM's new document delivery component of GRATEFUL MED. LOANSOME DOC (LD) was defined as "A GRATEFUL MED feature which provides the capability of electronically ordering documents identified in citations retrieved through GRATEFUL MED." Specifically LOANSOME DOC is a set of system enhancements to both GRATEFUL MED and NLM's DOCLINE system. However, while the two systems communicate with each other, the GRATEFUL MED user never enters DOCLINE directly. All LD users must register with a DOCLINE library which will then be referred to as his or her ordering library. All requests go to the ordering library as the first point of receipt.

## Objectives

The objectives of the system are to:

- a) link the GRATEFUL MED user with a DOCLINE library for document delivery service;
- b) minimize any separate processing functions for GRATEFUL MED orders in the DOCLINE system; and
- c) provide a means for the health professional to check on the status of his/her ordered document.

For the initial implementation, only orders for documents from references in MEDLINE, its Backfiles, SDILINE or the Health Planning & Administration databases will be possible.

## Users

At least initially, LD users can be categorized as:

- a) GRATEFUL MED users (PC Version 6.0);

- b) health professionals affiliated with one or more health or hospital facilities;
- c) unaffiliated health professionals; and
- d) health professionals in all geographic areas of the United States.

Initializing the document ordering capability requires the GRATEFUL MED user to follow carefully instructions for LOANSOME DOC configuration in GRATEFUL MED. Key components of LD configuration include: identifying one's ordering Library ID, complete user name and address, FAX number (if FAX equipment is available), delivery method, credit card information, and whether or not the order should be filled using additional libraries (e.g., transferred to other libraries within DOCLINE). [Editor's note: Credit card information is no longer a part of the LOANSOME DOC configuration screen.]

## System Design

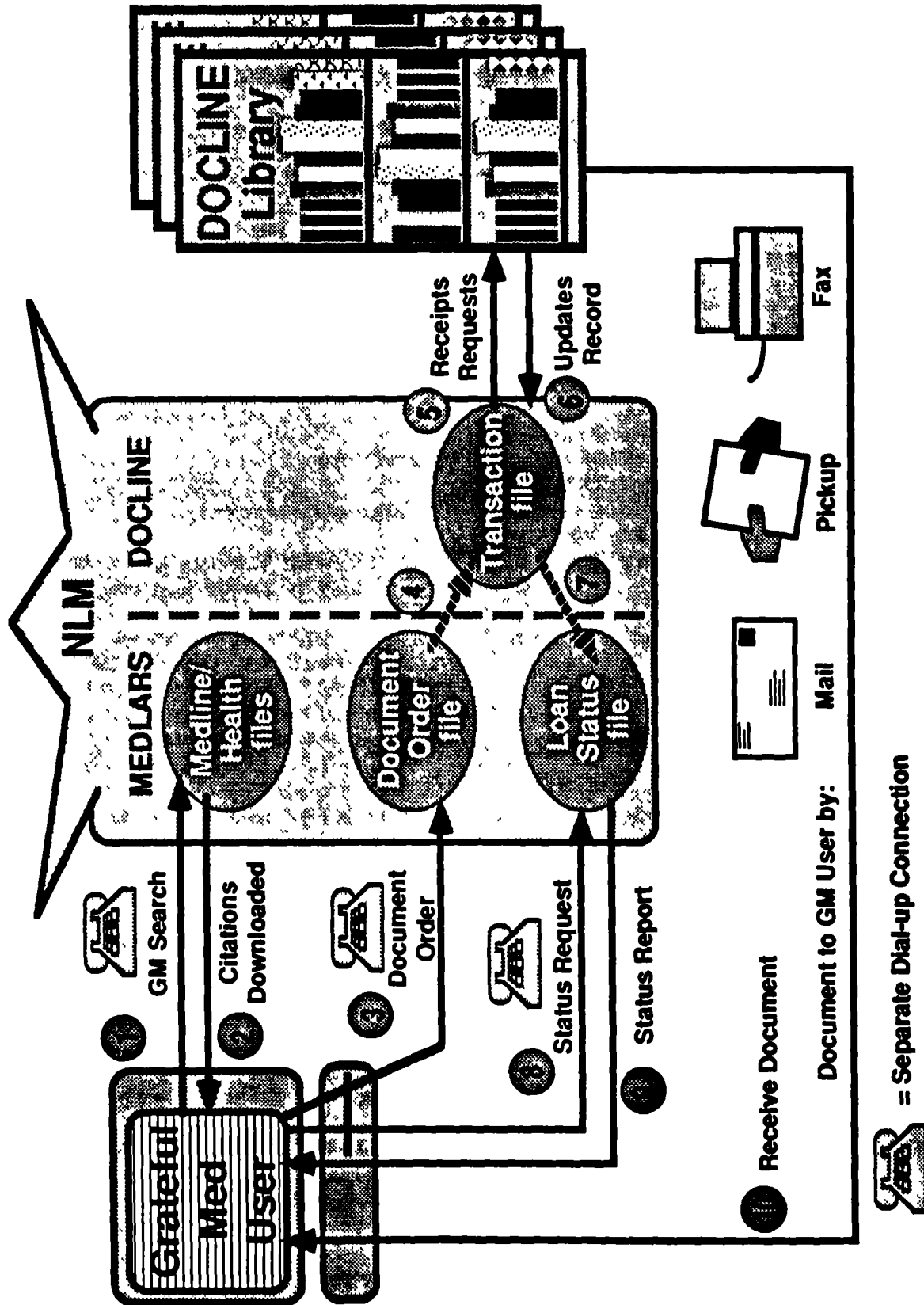
The system works as follows:

- Step 1: GRATEFUL MED user sends search query to MEDLINE, SDILINE or HEALTH.
- Step 2: Citations are downloaded. GRATEFUL MED user reviews citations and selects citations to be ordered from his DOCLINE library.
- Step 3: GRATEFUL MED user sends his order list to MEDLARS Document Order File.
- Step 4: At NLM, orders are transferred to DOCLINE.
- Step 5: DOCLINE library receipts orders and determines which can be filled.
- Step 6: DOCLINE library updates each order as filled, not filled, or transferred to DOCLINE where it becomes an ILL and routes according to the primary library's routing table.
- Step 7: Status of all documents is uploaded daily to MEDLARS Loan Status File.
- Step 8: GRATEFUL MED user requests status reports from Loan Status File.
- Step 9: Status information downloaded to PC and reformatted for user.
- Step 10: Document delivered to user via mail, FAX or pickup.

On page 16 is a schematic representation of the ten steps listed above in the LOANSOME DOC routing process, from the search to the creation of the document order through the document delivery.

Monthly reports will be available to all DOCLINE libraries who are LOANSOME DOC participants.

# LOANSOME DOC



**Advantages to DOCLINE Libraries**

1. All requests have correct citation information.
2. All requests are received on identical forms.
3. Requests contain correct user name and address.
4. Library controls receipt of requests.
5. There will be NO rekeying of citations for requests transferred to DOCLINE.
6. User checks own status of loans.
7. More user services mean greater recognition for the library.

**Pilot Sites**

NLM will pilot test LOANSOME DOC in Region 7 in the states of Arizona, Hawaii and Nevada beginning

September 1, 1990. The pilot project is expected to last 3 to 4 months. Currently those states have 360 GRATEFUL MED users and 44 DOCLINE libraries. [Editor's note: The pilot sites have been expanded to include specific California zip codes for Irvine, Sacramento, Loma Linda and Davis. This was done to insure a varied range of users, as well as a large enough group of users to form a representative sample. There are now approximately 625 users and about 50 libraries participating in the pilot project.]

**Implementation**

LOANSOME DOC will be implemented in phases throughout the rest of the country later in 1991.

## NLM Online Users' Meeting - MLA 1990: Questions and Answers

Following are comments and questions from the audience as well as answers from this meeting. Answers may have been expanded by NLM for clarification and to provide additional information.

1. Q: It sounds as if the LOANSOME DOC user in his or her profile has to indicate only once whether the items requested are going to be picked up, mailed, or faxed. I wonder if there is a provision for the user to say, "This is an emergency. Please fax it, but everything else I requested can be mailed to me."

A: Yes, there is such a facility. After the user has selected the items to order, he/she can review and edit his/her order list. One of the data elements that can be changed before sending the order list is delivery method.

2. Q: Not a question, but a comment: "I think we all thank you for EXPLODE ALL. It's wonderful!"

A: Note: In case you missed the announcement, NLM implemented the EXPLODE ALL feature on May 6, 1990 by automatically exploding all tree numbers whenever a term is located in more than one tree structure (in response to an EXPLODE command). If you want to EXPLODE only a particular tree, you may type in the EXPLODE command followed by the specific tree number desired. See the article in the April 1990 *Technical Bulletin* for further details on the EXPLODE ALL feature.

3. Q: When does LOANSOME DOC become operational for everybody?

A: The pilot project is expected to begin in September and last for 3-4 months. So, it may well be December or January before we finish looking at the pilot study results. NLM expects to gain much information during the pilot project. The purpose of the project is to look at what happens in the real world and we may make some changes to the system as a result of those findings. We are saying 1991; probably, LOANSOME DOC will be implemented for everyone with Version 6.0 of GRATEFUL MED.

4. Q: There is a place where a LOANSOME DOC user registers, that is, where the user enters the Library Identification number. I presume the user has been in touch with NLM before they enter this number. What would happen if someone put a Library ID in and our library started receiving requests from persons unknown in terms of filling interlibrary loan requests.

A: The LOANSOME DOC user must have entered into an agreement with a library for filling of document delivery requests. Or, the Regional Medical Library may have set up the arrangements. The National Library of Medicine will not be giving out Library ID numbers. If requests are received from unknown parties, the library does not have to fill these requests. This is true today with requests for interlibrary loans or other library services and it will continue to be the case with LOANSOME DOC. We should gain much experience that should include such situations in the pilot project and we will be developing the necessary policies to deal with the specific situations as they arise.

5. Q: Will LOANSOME DOC be mailed separately or will it be built into GRATEFUL MED? I have a pet peeve in that individual new users are now receiving their copies of Version 5.0 and don't know how to install them. We are an academic medical library who has not received our update copy and I've heard that some of the Regional Medical Libraries don't have their copies either. What was the mailing order for your GRATEFUL MED packages? If LOANSOME DOC will go to our users before the DOCLINE libraries, there may be problems.

A: No, individual GRATEFUL MED users will not receive LOANSOME DOC before the DOCLINE libraries. At the point at which LOANSOME DOC is ready for everyone's use, the DOCLINE libraries will be well prepared. For the GRATEFUL MED user, there will be promotional materials and documentation accompanying the package. In order to activate document ordering, the user must contact a DOCLINE library. There should be no DOCLINE library who is contacted who doesn't already know about participating in LOANSOME DOC. The logistics of LOANSOME DOC and document delivery should be well worked out before the release of Version 6.0 software. Further, for those who purchase Version 6.0, if they're not intending to use LOANSOME DOC they don't have to. GRATEFUL MED will not require LOANSOME DOC use. Similarly, any DOCLINE library that is not participating in LOANSOME DOC will not see a change in their DOCLINE menu.

Insofar as the mailing order of GRATEFUL MED, i.e., filling new orders first and then mailing the updates, this was a decision that NTIS and NLM made due to the delays in Version 5.0. Because of the delays, there were almost 2,400 new users who had requested copies but had not received them. We felt we should get GRATEFUL MED out to them. The other users still had Version 4.0 to use, but the new users had nothing. NLM hopes that this was a one time aberration that won't happen again.

6. Q: First, a comment: I wanted to thank the MEDLARS Service Desk staff and all the MEDLARS Management Section staff who have been so helpful to the West Virginia Online Demonstration Project in helping us get the word out about GRATEFUL MED to our users. Now my question: Do you anticipate any change in the requirement for libraries using DOCLINE that each library be a SERHOLD listee?

A: No change in current policy is expected in the near future.

7. Q: Are you planning any bridge between DOCLINE and MEDLINE? Namely, when you're in DOCLINE and you want to see something in MEDLINE, you have to log off DOCLINE and then connect separately to MEDLINE.

A: No bridge is currently being constructed.

8. Q: What will be the content and cost of the BIOTECHSEEK file?

A: The file will start small and will include references from 30 biotechnology journals with a publication year of 1990 forward not covered in MEDLINE. We would eventually like to add data from non-NLM sources, such as the National Agricultural Library and others. The cost will be the same as for other non-royalty files such as MEDLINE.

9. Q: If the GRATEFUL MED user is unable to get his document from the library with which he/she is registered, will that request go into the regular DOCLINE routing?

A: The request goes into the regular DOCLINE routing if in the LOANSOME DOC SETUP area the user has instructed the primary library to refer the request. There is a question on the LOANSOME DOC configuration screen "Use additional libraries (Yes/No?)". If the answer is Yes and his primary library

cannot fill the request, that library will take action to transfer it into DOCLINE and then the request will route according to that library's routing table.

10. Q: Following the above scenario, will the lending library enter the request into DOCLINE? How? Just by setting "not available," or would the library have to key in the number?

A: The GRATEFUL MED user's primary library will transfer the request into DOCLINE. At the bottom of the LOANSOME DOC receipt there is a field titled "DOCLINE" indicating whether or not the GRATEFUL MED user has requested that the document order be filled using additional libraries. If the request indicates "DOCLINE: Yes" and the primary library is unable to fill the request from within its collection, then the primary library transfers the request into DOCLINE using the BORROW module. In the BORROW module the library will be prompted for the request number. If the request has not been updated in LEND, then the library will be required to enter a referral reason.

11. Q: I still don't understand. Isn't there a way that I can enter, "Not On Shelf," or something like that?

A: There will be a modification made in the DOCLINE BORROW mode. When asked for the referral reason, normally staff at most of the borrowing institutions just press the carriage return. However, if you are transferring a request, you will be required to enter a referral reason like "Not on Shelf" or "At Bindery." Or, you can go into LEND first and update a request with the reason it was not filled.

12. Q: When a supplementary chemical term becomes a Category D term, the previous indexing information about it can become lost from the MeSH Supplementary Chemical Records. For example, AZT was established as the MeSH heading Zidovudine in 1989. When you type Zidovudine in MEDLINE and its Backfiles, you retrieve only the MeSH heading from 1989 forward. The references from 1983 to 1988, when the concept of AZT was a supplementary chemical name appearing in MEDLINE records in the RN field and was searchable when entered and qualified by (NM), are not retrieved. I know that NLM is interested in working on this problem and I wanted to let everyone know about it.

A: There have been no staff resources to work on this problem in recent years but it is high on our agenda. We are likely to provide online notes in the

Annotated MeSH for such chemicals to inform users that the chemical's name qualified by (NM) will retrieve additional citations beyond what is obtained by using only the MeSH heading.

13. Q: I wish you were not planning to have a separate biotechnology file, BIOTECHSEEK, because as searchers it just means one more place where we have to go to look for information.

A: You may use MultiFile Searching if you wish to search several files at once, for example MEDLINE and BIOSEEK. NLM created this separate file because of our concerns over the size of MEDLINE and its scope.

14. Q: I wish you would "double-post" the MeSH terms, especially for those searchers who are new to the system. For example, if you were to type in brain, you would also get brain neoplasms. This has been done by all the other online vendors.

A: We are already planning such a capability. We are currently testing MeSH fragments, e.g., splitting up each word of a multi-word MeSH heading and posting each word, as well as a separate facility for Title Word searching (rather than both Title and Abstracts Words in the Text Word field) for MEDLINE. We hope to announce these capabilities with the new system in December.

15. Q: How about an adjacency command?

A: No plans.

16. Q: While I am very happy about author affiliations for additional journals, the individual words are not directly searchable. So, if I have to search for citations affiliated with a particular institution, I don't use NLM because I have to stringsearch on the entire field. Then I use another vendor, so I don't have to stringsearch.

A: This problem has not been addressed previously, but we have long felt that we should re-explore this and see if we can't make the components of the author address field directly searchable. [Editor's note: The capability of Text Word searching in the Address (AD) field is currently being tested. We hope to announce this new feature in December.]

17. Q: I love online "crunching" sorting (i.e., MultiFile Searching) and I'd love to see it for offline prints across files too. (Many in the audience agreed.)

A: NLM does not expect to implement offline sorting across files. [Editor's note: Offline sorting within a file is a currently available feature.]

18. Q: Many of the academic health science libraries have to manage GRATEFUL MED accounts for faculty and students. Many times what is wanted are codes for a group and a Master account for the codes. Also, the credits on the codes and sorting all this out is confusing. Please make some changes in your online application forms--simplify them--there are too many little "boxes."

A: The forms have been simplified. Both regular and student application forms are now included in the same packet (only two sheets of paper) and there is now only one box to check if you want a Master account for a group of codes and you may indicate the main code that you now want the codes mapped to (Master account). Additionally, you can call the MEDLARS Service Desk if you plan to request a group of codes, for example, student codes, to get help with the forms or to clear up any confusion ahead of time.

19. Q: Did our mail get messed up, or did we just receive the February *Technical Bulletin* last week?

A: We experienced a long delay in preparing the materials because of the size of that issue.

20. Q: Have you mailed the DOCLINE statistics yet?

A: Yes, the April DOCLINE statistics went out the second week of May. A new policy has been instituted. Once the contractor has put the statistics into the mail, a broadcast message is posted on DOCLINE giving a date after which you should contact NLM if your copy doesn't arrive.

21. Q: How long is the message kept in DOCLINE?

A: We generally post it for 2 days.

22. Q: Can you substantially increase the number of psychology journals that are indexed for MEDLINE? We have to go to other online vendors for psychology coverage.

A: Tell NLM if you have specific journal titles you want to suggest for inclusion. Send any suggestions for either titles, subject areas or new MeSH headings to: Ms. Peri Schuyler, Head, MeSH Section, NLM, Bethesda, MD 20894. There are no plans to



create a database or a subset of MEDLINE that would encompass all the psychiatry and psychology journals or for any other specialized area of medicine.

23. Q: Who is on the panel that reviews journals for inclusion in MEDLINE? The reason I ask is I haven't had too much luck in having my suggestions approved. Also, I believe I note a bias toward research journals in MEDLINE.

A: A committee of 10 to 12 non-NLM experts from various fields including medicine, library/information/computer science, and other health-related specialties review all the journals that get considered for MEDLINE and Index Medicus. The committee meets three times a year and its members serve 4-year terms. In the process of their review, they consider journal suggestions that come to NLM, including requests made by publishers and journal editors, as well as requests received from librarians and health professionals. At the meetings, these reviewers examine about 120 different titles. The Library's role is to facilitate the work of the committee and not to make decisions in the selection of particular titles.

24. Q: I would like to make a plea for inclusion of materials chiefly used by students. For example, Physician and Sports Medicine.

A: Please submit that suggestion to us. Even if a title has been reviewed in the past and not selected, it may be reviewed again at a later time.

25. Q: When MEDLINE is updated weekly are you planning to offer weekly updates to the vendors who lease it and make it available on their online systems?

A: We offered weekly updating to all licensees who were receiving MEDLINE on a semi-monthly basis. However, most of the licensees (chiefly those leasing MEDLINE subsets) elected only to update once a month and it is possible that some of the licensees will not elect to receive weekly updates.

26. Q: I am a little confused about the billing for LOANSOME DOC. You said the health professional will be in touch with his library. But if the

request cannot be filled and goes to our routing table in DOCLINE and is filled, how will the billing be done? We offer free interlibrary loans to all of our affiliates, i.e., all of our user community. However, we anticipate that some of those requesting document delivery may be outside of our user community. What would happen then? Is there a capability for those persons being billed directly?

A: The end user will not be billed directly. You will be the intermediary for the libraries that are servicing you. If an institution or library in your routing table fills the request, it will be a billing between you and that facility. Libraries serving unaffiliated health professionals will want to establish their own rates for filling document requests.

27. Q: What happens if a LOANSOME DOC request is routed to another library where it is filled. Who will bill the user?

A: The bill will always go back to the initial requesting library, i.e., the filling library will bill you and you'll bill the user. The requesting library will be known to the end user as the ordering library.

28. Q: Will the articles go directly to the user or will they go first to the DOCLINE library?

A: The answer is that this can work either way. The decision is up to the DOCLINE library. If the DOCLINE library wants the material to go directly they have that option; if the DOCLINE library prefers to receive the material and then forward it to the user, that option is also available. For each article referred on to the next library in the routing table, there is a designation in the SHIP TO field, indicating where the material is to be sent.

\* \* \* \* \*

The Library appreciates the feedback and comments received at the Online Users' Meeting. If you didn't get to ask your question, always feel free to call the MEDLARS Service Desk with your questions or suggestions. Alternatively, you may write us with any suggestions for improvements or problem areas.

## NLM Online Training Program January - April 1991

The schedule of NLM Online Services Training classes has been developed for the first four months of 1991 and is printed in Appendix B at the end of this issue. At this time we are publicizing only the January through April schedule of classes due to pending negotiation of regional online training contracts. The remainder of classes for 1991 and other NLM training program announcements will be included in the *Technical Bulletin* at a later date.

These courses concentrate on command language searching and thus are not recommended for GRATEFUL MED searchers. Training in the use of GRATEFUL MED is frequently provided by medical librarians throughout the country or by your Regional Medical Library. As in the past, the "Fundamentals of MEDLARS Searching" and the "Follow-Up" are being taught at the National Library of Medicine as well as at numerous sites throughout the United States. There are no charges for these classes; you do have to cover any costs incurred for travel, food and lodging.

Below is a brief description of the two courses offered:

### The Fundamentals of MEDLARS Searching

The "Fundamentals of MEDLARS Searching" is designed to introduce novice searchers to basic MEDLARS searching techniques. In order to take Modules 2 or 3 it is necessary to have completed Module 1.

A. Module 1 is a three-day core course that concentrates on MEDLINE:

1. A brief history of MEDLARS and an overview of all databases.
2. System mechanics -- access procedures and basic commands.
3. Use of the Medical Subject Headings (MeSH).
4. Explanation of the MEDLINE unit record and formulation of search strategies in MEDLINE.
5. Special search capabilities -- including free text searching, STRINGSEARCH, STORESEARCH, and SAVE/SAVESEARCH.

B. Module 2 is a one-day session which includes:

1. CHEMLINE -- a chemical dictionary file

providing synonyms and CAS Registry Numbers for use with other databases.

2. TOXLINE/TOXLIT -- a bibliographic file focusing on the toxicology literature and research projects.

3. An overview of the interrelationships between the chemical and toxicological files including the TOXNET system.

C. Module 3 is a half-day session which covers:

1. CANCERLIT -- a bibliographic cancer-related file.
2. PDQ (User-friendly system) -- a descriptive information file on cancer protocols and clinical trials.

### Follow-Up to the Fundamentals of MEDLARS Searching

The "Follow-Up to the Fundamentals of MEDLARS Searching" details the specialized databases on the MEDLARS system. All "Follow-up" modules require previous training and/or search experience on MEDLARS databases.

A. Module 1 -- Enhanced Skills in Searching MEDLINE/MeSH/HEALTH. This one-day module will provide a refresher of the technical ELHILL commands as well as new techniques used in searching MEDLINE. The HEALTH PLANNING AND ADMINISTRATION file and the MeSH Vocabulary File will also be discussed.

B. Module 2 -- Cancer Information Searching. This half-day module will cover all aspects of searching the cancer databases, CANCERLIT and CLINPROT, as well as PDQ.

C. Module 3 -- POPLINE / BIOETHICS / HISTLINE. Information on these three specialized databases will be presented in a three-hour time slot.

D. Module 4 -- Searching the Technical Services Databases. This day-long module includes the techniques necessary to search the CATLINE, NAF, AVLINE, and SERLINE databases.

E. Module 5 -- Enhanced Skills in Searching CHEMLINE/TOXLINE/TOXLIT. Information and advanced techniques for searching the chemical and toxicological databases on the ELHILL system will be discussed.

F. Module 6 -- Tips and Techniques for TOXNET Searching. This one-day session will provide a comprehensive discussion of the various databases which comprise the TOXNET system.

Every attempt will be made to place training applicants in the class requested. If a class is filled, you will be registered for the class of your second choice, and also automatically placed on a waiting list for your first choice. If you are registered for training, approximately one month prior to the class you will receive a packet with information about hotels, local site arrangements and the agenda.

#### HOW TO APPLY

To apply for either the "Fundamentals of MEDLARS Searching" or the "Follow-Up" class, interested searchers should complete the "Request for NLM Online Training" (found in Appendix C). Please make photocopies of this form for your files.

Keep the following points in mind, when applying for these classes:

- 1) The same form is used for applying for either class; however, only one type of class can be requested per form and only one applicant per form.
- 2) You must have a MEDLARS User ID code in order to attend any of the classes.

3) Please specify the class dates and sites on your form. Remember, some classes fill rapidly; therefore, it's a good idea to list a second choice to expedite scheduling.

4) Indicate the modules you plan to attend. You will have an opportunity later to confirm those modules once you have been scheduled.

**\*\*Important note:** In order to attend Modules 2 or 3 of the "Fundamentals" class, it is necessary to have completed Module 1 either during the same week or in a previous class.

There is not a similar prerequisite for the "Follow-Up" class. However, it is recommended that you have previous experience/training or prior knowledge of the ELHILL command language before attending. NLM also encourages searchers to wait three to six months after completing the "Fundamentals" class before enrolling in the "Follow-Up" class.

5) No more than one person per User ID code will be scheduled into a particular class (except where space becomes available within two weeks prior to the beginning of the class).

6) All classes are considered "tentative" pending sufficient enrollment (a minimum of 12 attendees) by approximately one month before the class.

## Gold Standard Searches

Now you have another chance to match wits against the NLM experts. This is the second in a series of search strategies developed by an expert searcher here at NLM. These searches are based on real requests; however, the strategies were developed here at NLM with no interaction between the requester and the searcher. The size and nature of the intermediate results influenced the final search strategy of the searcher. If very few citations were retrieved, the strategy was broadened. If over 100 citations were retrieved (a number that was arbitrarily defined as too many to scan for relevance), the strategy was refined to increase precision.

If you mail us a copy of your search strategy with a printout of citations and abstracts and your strategy is selected for publication in this column, you could win either a copy of GRATEFUL MED or one hour of free search time. Limit your retrieval to 50 or fewer citations. In cases of multiple submissions of identical winning strategies, the first one to arrive across the editor's desk is the prizewinner. Relevancy determinations will be made here at NLM and all decisions of the judges will be final.

The search request for this contest is:

**Changing teenage behavior through AIDS education programs.**

Search hints for direct searchers:

Select your database carefully. Limit your retrieval to English language citations.

Search hints for GRATEFUL MED users:

Select your database with care. Remember to use the F10 key to look at MeSH headings. Limit retrieval to English.

There are no exact answers or absolutely correct strategies, only best approximations, just like real life. Good luck!

Please send a copy of your search strategy with the retrieval, including printed abstracts and an indication of the search mode used (i.e., GRATEFUL MED or searching the database directly) to:

Gold Standard Searches  
MEDLARS Management Section  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894

# ChemID Enhanced with SUPERLIST: a New Link to Lists of Regulatory or Biomedical Interest

Vera W. Hudson  
George F. Hazard, Jr., Ph.D.  
Specialized Information Services, NLM

One of the functions of chemical directories such as ChemID is to provide a link from chemical concepts such as the name of a chemical to other resources which are concerned with that chemical. ChemID has always provided this link in its Locator (LO) field, which shows files within the MEDLARS system containing data for a given chemical. Many users, however, are also interested in determining what other organizations are involved in the regulation or reporting of that chemical. Is it regulated or listed by the U.S. Department of Transportation or by the states of California or Massachusetts? Does the International Agency for Research on Cancer (IARC) report on it? To begin to allow users to determine such external status, data have been added to ChemID for over 5,000 records showing both the presence of a chemical on one of 16 external lists, and also the name used on a particular list. This collective capability is known as SUPERLIST.

## Format of SUPERLIST records

Figure 1 shows the record Benomyl which contains the new SUPERLIST data. The names used by the individual sources of data have been added to the end of the Name of Substance (NM) field. Each SUPERLIST name is preceded by the term [LIST], and followed in square brackets by the acronym for each source list which has used this name. The source acronym is repeated in a new searchable List Locator (LLO) field.

In the example in Figure 1, on the next page, the three SUPERLIST names and their corresponding List Locators were:

```

NM - [LIST] Benlate [TLV]
NM - [LIST] Benomyl [FIFR:MA:PEL:TLV]
NM - [LIST] Methyl 1-(butylcarbamoyl)-2-
      benzimidazolecarbamate [TLV]
.
.
LLO - FIFR
LLO - MA
LLO - PEL
LLO - TLV
.
.
LO - SUPERLIST
    
```

The first name "Benlate" was only used by the TLV source (Figure 3 shows the full name corresponding to the acronym), the second, "Benomyl" was used by FIFR, MA, PEL and TLV, and the last semi-systematic name was also used by TLV. The new searchable LLO field shows each source acronym once. All names in the NM field are indexed into the searchable SY field in ChemID. Data in square brackets is indexed only to the Name Fragment field. The LLO field is indexed into the searchable Locator (LO) field, together with all data from the printed LO field. Each record which contains SUPERLIST data carries the term SUPERLIST in its Locator field, and this allows qualification of searches by the term "superlist" to determine the presence of a chemical in any or all of the 16 lists.

```

1
RN - 17804-35-2
ON - 39357-40-9 [TSCA]
ON - 52683-56-4 [TSCA]
MF - C14-H18-N4-O3 [HSDB:RTECS:TSCA]
N1 - Carbamic acid, (1-((butylamino)carbonyl)-1H-benzimidazol-2-yl)-, methyl ester (9CI) [TSCA]
N1 - 2-Benzimidazolecarbamic acid, 1-(butylcarbamoyl)-, methyl ester (8CI) [RTECS]
NM - Benomyl [CCRIS:HSDB:MESH]
NM - Benomyl [ANSI:BSI:ISO] [NLM]
NM - [LIST] Benlate [TLV] <----- Start of SUPERLIST Names
NM - [LIST] Benomyl [FIFR:MA:PEL:TLV]
NM - [LIST] Methyl 1-(butylcarbamoyl)-2-benzimidazolecarbamate [TLV]
SY - Arilate [RTECS]
SY - BBC [RTECS]

SY - 2-Benzimidazolecarbamic acid, 1-(butylcarbamoyl)-, methyl ester (8CI) [HSDB]
MH - Benomyl
CC - Agricultural Chemical [RTECS]
CC - Fungicide, bactericide, wood preservative [RTECS]
CC - Mutation data [RTECS]
CC - Reproductive Effect [RTECS]
CC - Skin / Eye Irritant [RTECS]
LLO - FIFR <-----Start of List Locators
LLO - MA
LLO - PEL
LLO - TLV
LO - TOXLIT
LO - TOXLINE
LO - TOXLIT65
LO - TOXLINE65
LO - MEDLINE
LO - MED86
LO - MED83
LO - MED80
LO - MED77
LO - MESH
LO - CANCERLIT
LO - HSDB
LO - CCRIS
LO - TSCAINV
LO - RTECS
LO - ETICBACK
LO - SUPERLIST <----- SUPERLIST Locator
    
```

Figure 1 - ChemID Record for Benomyl

**Scope of SUPERLIST**

SUPERLIST is a capability which shows the presence of a chemical in ChemID on any one of a set of 16 lists chosen for biomedical or regulatory interest. The data were input from the original documents, using the CAS Registry Number (RN) assigned in each source document. When necessary, CAS RNs were assigned to source names manually. For instance, if a source document listed the well known name "librium" without an RN, the RN was assigned to this record for consistency. If the chemical in the list was ambiguous,

and no RN could be given, an identifying number was assigned and put into the ID field.

Figure 2 shows the acronyms and names of the first set of sixteen lists in SUPERLIST. To show more detail about each list, including a literature reference, explanatory records were put into the ChemID record with more information about each list, and these can be easily retrieved and printed. To do this the user may type "xxxx list" where xxxx is the list acronym. To do this for the S110 list, the strategy shown in Figure 2 may be used.

```

USER:
s110 l1st

PROG:
SS (1) PSTG (1)

USER:
print full

1
ID - S110 LIST
NO - LIST NAME - SARA Section 110, ATSDR/EPA Priority List
NO - DESCRIPTION - A list of hazardous substances most commonly
found at facilities on the CERCLA National Priority List (NPL)
NO - REFERENCE - Fed. Regist. 52(74):12866 (17 Apr 1987)
NO - REFERENCE - Fed. Regist. 53(203):41280 (20 Oct 1988)
NO - REFERENCE - Fed. Regist. 54(206):43615 (26 Oct 1989)
NO - LIST PRODUCER - Agency for Toxic Substances and Disease
Registry and U.S. Environmental Protection Agency
    
```

Figure 2 - Strategy for Finding List Information

The definitions for all 16 lists may be retrieved by searching the Note (NO) field for the words LIST and NAME as shown in Figure 3A. As in Figure 2, each record shows the List Name, Description, References, and List Producer for a given acronym.

Figure 3B displays the List Acronyms and the complete List Names. The user may refer to the source document or producer for more information about the chemical. SUPERLIST does not attempt to be the final authority in regulation of a chemical because these lists may change in a manner that will not be immediately reflected in ChemID. Questions about content or status must be referred to the producer of the list rather than NLM.

```

USER:
(no) list and name
PROG:
SS (1) PSTG (16)

SS 2 /C?
USER:
prt 1 full
PROG:

1
ID - MA LIST
NO - LIST NAME - Massachusetts Substance List
NO - DESCRIPTION - A list of toxic or hazardous substances to which
the provisions of MA General Law C.111F apply.
NO - REFERENCE - General Law, Chapter 30A, 28 June 1984 Appendix A of
105 CMR 670.000 Code of MA Regulation
NO - LIST PRODUCER - State of Massachusetts
    
```

Figure 3A - Retrieving List Information

<u>List Acronym</u>	<u>List Name</u>
CA65	California List of Chemicals Known to Cause Cancer or Reproductive Effects
CGB	DOT Coast Guard Bulk Hazardous Materials
CGN	DOT Coast Guard Noxious Liquid Substances
DEA	Drug Enforcement Administration Controlled Substances
DOT	DOT Hazardous Materials List
FIFR	EPA Pesticide List (FIFRA)
IARC	International Agency for Research on Cancer
MA	Massachusetts Substance List
NTPA	NTP Carcinogen List
PEL	OSHA Toxic and Hazardous Substances
REL	NIOSH Recommended Exposure Limits
RQ	CERCLA Hazardous Substances Table 302.4
S110	SARA Section 110, ATSDR/EPA Priority List
S302	SARA Section 302, Extremely Hazardous Substances
TLV	ACGIH Threshold Limit Value
TRI	SARA Section 313, Toxic Release Inventory

Figure 3B - List Acronyms and List Names in SUPERLIST



**Searching Using SUPERLIST**

We expect that the normal use of this new feature will be to determine if a chemical of interest to a searcher is present on any of the 16 lists. Because the NM and LLO fields print in all standard print formats, this

SUPERLIST status should be apparent after most retrieval. In many cases using the standard print is sufficient, and more convenient because all synonyms don't print. Searching for the pesticide dimilin and printing in the standard format would appear as shown in Figure 4.

```

USER:

dimlin
PROG:

SS (1) PSTG (1)
USER:
print

1
RN - 35367-38-5
ON - 51026-04-1 [TSCA]
ON - 53026-03-2 [TSCA]
ON - 66594-18-1 [TSCA]
ON - 104790-81-0 [TSCA]
N1 - Benzamide, N-(((4-chlorophenyl)amino)carbonyl)-2,6-difluoro-
    [TSCA]
N1 - UREA, 1-(p-CHLOROPHENYL)-3-(2,6-DIFLUOROBENZOYL)-
    [RTECS]
NM - Diflubenzuron [ANSI:BSI:ISO] [NLM]
NM - Dimilin [MESH]
NM - [LIST] Diflubenzuron [FIFR:MA] <----- List Acronym
LLO - FIFR ;<----- List Locators
LLO - MA
LO - TOXLIT
LO - TOXLINE
LO - TOXLIT65
LO - TOXLINE65
LO - MEDLINE
LO - MED86
LO - MED83
LO - MED80
LO - MED77
LO - MESH
LO - CANCERLIT
LO - TSCAINV
LO - RTECS
LO - ETICBACK
LO - SUPERLIST
    
```

Figure 4 - Dimilin Search Using Standard Print Format

In this case dimilin is discussed on the FIFR and the MA lists. The user may also search using the List Locator to retrieve the entire list, or portions of the list. To retrieve all substances on the REL list of NIOSH Recommended Exposure Limits, and then limit this to compounds containing chlorine, the strategy shown in Figure 5 may be used. The LLO field is indexed into the Locator (LO) field, so you may search using LO as the qualifier, as shown in this Figure.

The term SUPERLIST may be used as a Locator to limit any type of ChemID search to compounds on any one of the 16 lists. To find out which compounds containing the name fragment "phosphorothioic" (commonly appearing in pesticide names) also contain SUPERLIST data, the strategy shown in Figure 6 may be used. The 34 records could then be printed to determine which of the 16 component lists was interested in a given chemical.

```

USER:
(lo) rel

PROG:
SS (1) PSTG (213) <----- Records with REL as a List Locator

USER:
(ff) cl or chlorine (nf)

PROG:
SS (2) PSTG (35650) <----- Records containing chlorine as FF or NF

USER:
1 and 2

PROG:
SS (3) PSTG (31) <----- Records in REL list with chlorine
    
```

Figure 5 - Searching Using the Locator (LO) Field

```

USER:
phosphorothioic (nf) and superlist (lo)

PROG:
SS (4) PSTG (34) <---Records on SUPERLIST with phosphorothioic (nf)
    
```

Figure 6 - Searching Using SUPERLIST as a Locator (LO)

In certain cases, compounds on some lists do not have CAS RN's available for identification. Sometimes these compounds represent concepts that are not clearly

defined, other times they are concepts that go beyond the scope of RN assignment. The search for records concerned with wood dust, shown in Figure 7, illustrates the retrieval for a substance with no CAS RN.

```

USER:
(nf) wood and dust

PROG:
SS (1) PSTG (5)

USER:
print d1

PROG:

1
ID - NIOSH/ZC9850000
N1 - WOOD DUST [RTECS]
SY - WOOD DUST (ACGIH,OSHA) [RTECS]
LO - RTECS

2
ID - W01600000
NM - [LIST] Wood dust, western red cedar [PEL]
LLO - PEL
LO - SUPERLIST

3
ID - W01500000
NM - [LIST] Wood dust, Soft wood, nonallergenic [TLV]
LLO - TLV
LO - SUPERLIST

4
ID - W01400000
NM - [LIST] Wood dust [certain hard woods as beech and oak] [TLV]
LLO - TLV
LO - SUPERLIST

5
ID - W01300000
NM - [LIST] Wood dust, all soft and hard woods, except western red
      cedar [PEL]
LLO - PEL
LO - SUPERLIST
    
```

Figure 7 - Search for Wood Dust (Compound without a CAS RN)

The first record has an RTECS ID number, and points to data in the RTECS file, a database from the National Institute of Occupational Safety and Health. The next 4 records point out various types of wood dusts mentioned in the REL and PEL lists. Each of these records has a number beginning with "W" in the ID field. This number was assigned during record creation from the list, and is a combination of the first letter of the chemical name used by the list producer and a sequentially assigned number. Such numbers may not be permanent, and could change in the future. They do not lead directly to the list, only the list acronym does this. Because they are not designed to be permanent, they would not be good candidates for inclusion in publications or other databases.

#### Conclusion

The inclusion of SUPERLIST pointers and data is the beginning of an effort to link chemical records in ChemID with outside resources which maintain an interest in these chemical substances. It is planned to add additional lists as time and resources permit, and to update the current lists as they change. SUPERLIST is meant to be an aid to gaining information about the status of chemicals. However, the presence or absence of a chemical on SUPERLIST is definitely not an official designation of regulatory status. Users who want to be sure of the status of a compound with an organization should contact the organization directly. Despite this caveat, we think that these data are a useful addition to the capabilities of ChemID. NLM would welcome comments and suggestions from users about this new feature, and will use this feedback to plan for future development of this type of information.

# CHEMLINE Rebuilt with New Locators and Improvements in Molecular Formula Searching

George F. Hazard, Jr., Ph.D.  
Specialized Information Services, NLM

CHEMLINE is an online, interactive chemical dictionary file maintained by the NLM and supported by a contract with Chemical Abstracts Service (CAS). A new CHEMLINE file containing 963,507 records was

made available in June 1990. This rebuilt file offers updates to all fields, including a variety of new Locators, and a greater depth of indexing in the Molecular Formula (MF) field. These changes offer the opportunity for more comprehensive, flexible searching. The record shown in Figure 1 will be used to discuss these features.

```

RN - 22204-24-6
MF - C23-H16-O6.C11-H14-N2-S          <----- New indexing of MF
N1 - 2-Naphthalenecarboxylic acid, 4,4'-methylenebis(3-hydroxy-,
      compd. with (E)-1,4,5,6-tetrahydro-1-methyl-2-(2-(2-
      thienyl)ethenyl)pyrimidine (1:1) (9CI) [MF1]
SY - Antiminth [MESH:USPDDN]
SY - Combantrin [CAS:MESH:RTECS:USPDDN]
SY - CP-10,423-16 [USPDDN]
SY - NSC 355080 [NLM]
SY - Pyrantel Pamoate [MESH*:RTECS:USPDDN*]
SY - Pyrantel Pamoate [USAN] [USPDDN*]
SY - 2-Naphthoic acid, 4,4'-methylenebis(3-hydroxy-, compd. with
      (E)-1,4,5,6-tetrahydro-1-methyl-2-(2-(2-thienyl)vinyl)pyrimidine
      (1:1) (8CI) [CAS]
CC - Anthelmintic [USPDDN]
CC - Drug / Therapeutic Agent [RTECS]
CC - Mutation data [RTECS]
CC - Reproductive Effect [RTECS]
LO - TOXLINE
LO - TOXLIT
LO - TOXLINE65
LO - TOXLIT65
LO - MEDLINE
LO - MED86
LO - MED83
LO - MED80
LO - MED77
LO - MESH          <----- 1990 MeSH
LO - CANCERLIT
LO - RTECS
LO - EINECS        <----- New Locator
LO - EMICBACK
LO - ETICBACK      <----- New Locator
    
```

Figure 1 - Pyrantel Pamoate

**New Locators (LO)**

CHEMLINE now points to a variety of new files in the

Locator (LO) field. Figure 2 displays the new values and their corresponding descriptions.

<u>Locator Name</u>	<u>System</u>	<u>Description</u>
AIDSDRUGS	(ELHILL)	Drugs used in AIDS Therapy
TRI	(TOXNET)	Toxic Release Inventory (TRI87)
IRIS	(TOXNET)	Integrated Risk Information System
EMICBACK	(TOXNET)	Environmental Mutagen Information Center Backfile
DART	(TOXNET)	Developmental and Reproductive Teratology
EINECS	(External)	European Inventory of Commercial Chemical Substances

Figure 2 - Locator Names

The existence of one of these file names in the LO field of a CHEMLINE record shows that the CAS Registry Number (RN) of that record will retrieve data in that particular file.

The U.S. EPA Toxic Substance Control Act Chemical Substances Inventory locator (TSCAINV) was also updated to reflect changes made to the inventory in 1989. CHEMLINE now points searchers to 23 files within the NLM ELHILL and TOXNET search systems, in addition to two outside files: the TSCAINV and the European Inventory of Commercial Chemical Substances (EINECS). The record in Figure 1 shows 2 of the new locators.

**Name Fields (N1, SY)**

The N1 and SY chemical name fields were re-created with the latest CAS data, as well as data from the following sources: the 1990 edition of USAN and the USP Dictionary of Drug Names, the 1988 edition of the CTFA Cosmetic Ingredient Dictionary, the latest RTECS file, the HSDB file, the 1990 MESH file, and nomenclature from several governmental and international sources labelled "NLM".

**Related Registry Number Field (RR)**

The RR field was totally regenerated, and now cross-references the entire file including records with the EINECS Locator. Thus, records for substances which are related, (such as salts and hydrates of a compound cited by CAS Number in any NLM file, as well as in the TSCAINV and EINECS files) contain the Registry Numbers of the related substances in the Related Registry Number (RR) field. See the Manual 13.25 for a list of qualifiers and the salts they stand for in the RR field.

**Molecular Formula Field (MF)**

Searching CHEMLINE for molecular formulas (MF) has been made more flexible and less expensive by the indexing of all embedded portions of the MF in addition to the entire MF. For this purpose, an embedded molecular formula is defined as either dot-disconnected (for salts, mixtures, or hydrates), or being enclosed by parentheses (for polymers). The example shown in Figure 3 for Pyrantel Pamoate show the previous standard field indexing as well as the new indexing.

MF - C23-H16-06.C11-H14-N2-S	<-----	Printed MF Field
(MF) C23-H16-06.C11-H14-N2-S	----->	Standard MF Field Indexing
(MF) C23-H16-06	-----\	
(MF) C11-H14-N2-S	-----	
(MF) COMPONENT	-----/	-----> Additional New MF Indexing

Figure 3 - Molecular Formula Indexing for Pyrantel Pamoate

For this anthelmintic drug, the printed molecular formula shows two separate formulas separated by a period (dot disconnect). The more important Pyrantel part of the formula is C11-H14-N2-S and is found as the second formula. The Pamoate portion which begins the field with its MF of C23-H16-O6, is not the active part of the substance. The new indexing puts the embedded molecular formula of Pyrantel into the searchable MF field, and allows users to more easily retrieve salts and mixtures using an MF such as that of Pyrantel. Similarly polymers, which usually have formulas surrounded by

parentheses as in "(C6-H5-N)x-", will also generate individual formulas from within the parenthesized data (in this case "C6-H5-N").

For all records where dot disconnected or embedded MF data have been indexed, the word COMPONENT has been added to the searchable MF field. This allows limiting MF searches to those records containing an MF that is not dot disconnected or embedded. The example shown in Figure 4 illustrates both types of searches.

```

USER:
(mf) c11-h14-n2-s
PROG:

SS (1) PSTG (82)
USER:

print 4 mf

1
MF - C11-H14-N2-S.C1-H

2
MF - C11-H14-N2-S.C4-H6-O6

3
MF - C11-H14-N2-S

4
MF - C23-H16-O6.C23-H16-O6.C13-H16-N2-O.C11-H14-N2-S

If you want to limit searches of the MF field to compounds
where the data are not dot disconnected or embedded, such as
in the third record printed above, the user may NOT the word
COMPONENT as in the following search:

(mf) c11-h14-n2-s and not component

PROG:
SS (2) PSTG (44)
    
```

Figure 4 - Searching by Molecular Formula

This strategy will only retrieve compounds with the exact MF of C11-H14-N2-S, and not compounds with dot disconnected or embedded formulas.

Because a molecular formula is not always unique to a given substance, users will often want to qualify a search

in the MF field with other data such as name fragments. In the case of Pyrantel Pamoate, a few name fragments selected from the N1 field have the effect of limiting the records retrieved to those closest to the Pyrantel family. The strategy in Figure 5 shows this.

```

USER:
(nf) pyrimidine and thienyl and ethenyl and c11-h14-n2-s (mf)

PROG:
SS (3) PSTG (22)
    
```

Figure 5 - Searching with Name Fragments

These 22 compounds all have the same MF of the Pyrantel portion of the molecule, and in addition, share basic name fragments. For the most part, the records are for salts, mixtures, and stereoisomers of Pyrantel, including Pyrantel Pamoate.

#### Conclusion

This rebuilding of the CHEMLINE file continues the broad coverage of chemicals of regulatory or biomedical interest. The addition of the European EINECS file as a Locator gives searchers who have an interest in the European Community an opportunity to search and compare compounds in EINECS with the U.S. EPA

TSCA Inventory, as well as to find toxicological data in the MEDLARS system for substances in these chemical inventories.

The enhancement of the Molecular Formula (MF) field continues our efforts to pre-process complicated data in CHEMLINE and make it easier and cheaper to use. The new Molecular Formula capability along with Name Fragments from the N1 field, Formula Fragments from the MF field, and the Related Registry Number field, provide the user with a set of powerful tools to find related compounds in CHEMLINE, and then be pointed to the varied toxicological and biomedical data services available in the MEDLARS system.



## Serials Update

### INDEXED TITLES UPDATE, JULY-AUGUST 1990

The following titles cited in MEDLINE, HEALTH, and POPLINE have recently been selected for indexing, undergone a title change, or ceased publication. This list is not cumulative; the information provided is only for titles whose status has changed since the last UPDATE.

More detailed information may be found in SERLINE. For further information, please contact MMS or Ms. Esther Baldinger, (301) 496-1276, Technical Services Division, NLM.

### TITLES SELECTED FOR INDEXING, JUNE 1990

- |   |  |
|---|--|
| <p><b>INI AACN CLINICAL ISSUES IN CRITICAL CARE NURSING</b><br/>AACN CLIN ISSUES CRIT CARE NURS<br/>INI, MAY 1990--<br/>AMERICAN ASSOCIATION OF CRITICAL-CARE NURSES<br/>PHILADELPHIA PA UNITED STATES<br/>INDEXING BEGAN WITH VINI, MAY 1990.<br/>IN PROCESS 1046-7467<br/>SR0068211 JC: ATH</p> | <p><b>IDL REVISTA DA FACULDADE DE ODONTOLOGIA DA FZL</b><br/>REV FACULDADE ODONTOL FZL<br/>INI, JAN-JUN 1989--<br/>FACULDADES DA ZONA LESTE DE SAO PAULO<br/>SAO PAULO BRAZIL<br/>SERIAL CATALOGING IN PROCESS. CALL NO.<br/>ASSIGNED FOR SHELVING.<br/>INDEXING BEGAN WITH VINI, JAN-JUN 1989.<br/>M1 RE369V<br/>SR0066777 JC: ATQ<br/>REVISTA DE FACULDADE DE ODONTOLOGIA DAS<br/>- F.Z.L., RUE CESARIO GALERO, 432-449CEP<br/>03071, SAO PAULO SP, BRAZIL</p> |
| <p><b>INI ASPENS ADVISOR FOR NURSE EXECUTIVES</b><br/>ASPENS ADVIS NURSE EXEC<br/>INI, 1985--<br/>ASPEN PUBLISHERS<br/>ROCKVILLE MD UNITED STATES<br/>AN ASPEN PUBLICATION.<br/>INDEXING BEGAN WITH V4NI, OCT 1988.<br/>M1 AS346M 0883-9743<br/>SR0055147 JC: ATJ</p>                             | <p><b>IDL REVISTA DE LA FACULTAD DE ODONTOLOGIA</b><br/>UNIVERSIDAD DE ANTIOQUIA<br/>REV FAC ODONTOL UNIV ANTIOQ<br/>INI, OCT 1989--<br/>FACULTAD DE ODONTOLOGIA Y SU ASOCIACION DE<br/>LA UNIVERSIDAD DE ANTIOQUIA<br/>MEDELLIN COLOMBIA<br/>INDEXING BEGAN WITH VINI, OCT 1989<br/>ON ORDER<br/>SR0068654 JC: ATT<br/>FACULTAD DE ODONTOLOGIA, UNIVERSIDAD DE<br/>ANTIOQUIA, MEDELLIN COLOMBIA</p>   |
| <p><b>HLI HOSPITAL HAZARDOUS MATERIALS MANAGEMENT</b><br/>HOSP HAZARD MATER MANAGE<br/>INI, OCT 1987--<br/>ECRI<br/>PLYMOUTH MEETING UNITED STATES<br/>PA<br/>INDEXING BEGAN WITH V3NI, 1989.<br/>M1 HO791L 0895-7169<br/>SR0066373 JC: ATH</p>   |  |

### TITLE CHANGES, JUNE 1990

- |   |  |
|---|--|
| <p><b>INI FAG TIDSSKRIFTET SYKEPLEIEN</b><br/>FAG TIDSSKR SYKEPLEIEN<br/>77N16, SEP 28 1989--<br/>NORSK SYKEPLEIERFORBUND<br/>OSLO NORWAY<br/>CONTINUES IN PART: SYKEPLEIEN.<br/>M1 FA199L 0039-7628<br/>SR0068382 JC: ATF</p>                          | <p><b>INI JOURNALEN SYKEPLEIEN</b><br/>J SYKEPLEIEN<br/>77N16B, SEP 28 1989--<br/>NORSKE SYKEPLEIERFORBUND<br/>OSLO NORWAY<br/>CONTINUES IN PART: SYKEPLEIEN.<br/>M1 JO99L<br/>SR0068381 JC: ATG</p> |
| <p><b>IM MONOGRAPHS / JOURNAL OF THE NATIONAL CANCER</b><br/>INSTITUTE<br/>MONOGR J NATL CANCER INST<br/>10, 1990--<br/>NATIONAL CANCER INSTITUTE<br/>BETHESDA MD UNITED STATES<br/>CONTINUES: NCI MONOGRAPHS.<br/>IN PROCESS<br/>SR0068647 JC: ATR</p> |  |

TITLES NO LONGER INDEXED AS OF JUNE 1990

- IM ACTA TROPICA. SUPPLEMENT  
ACTA TROP SUPPL (BASEL)  
1,1945-12,1987  
SCHWABE  
BASEL SWITZERLAND  
SUPPLEMENT 12,1987 BOUND WITH V44,1987 OF  
ACTA TROPICA AND SHELVED AT W1 AC951.  
PUBLISHED VERY INFREQUENTLY.  
INDEXING FOR ONLINE FILES BEGAN WITH  
V9,1966.  
W1 AC9511 0365-1541  
A09360000 JC: 23B
- HLI AGING  
AGING  
N1,1951--  
DEPARTMENT OF HEALTH AND HUMAN SERVICES  
WASHINGTON DC UNITED STATES  
INDEXING BEGAN WITH N279-280, JAN-FEB 1978  
AND CEASED WITH V359,1989.  
W1 AG342 0002-0966  
A17445000 JC: 2XT
- HLI APPLIED RADIOLOGY  
APPL RADIOL  
5N4,JUL/AUG,1976--  
BRENTHOOD PUBLISHING CORP  
LOS ANGELES CA UNITED STATES  
CONTINUES APPLIED RADIOLOGY AND NUCLEAR  
MEDICINE. SUBTITLE VARIES. EACH ISSUE  
INCLUDES SEPARATE SECTIONS CALLED NUCLEAR  
MEDICINE AND ULTRASOUND. BIMONTHLY, VOLS.  
1-15, 1972-80; MONTHLY, VOL. 16, 1987-  
INDEXING CEASED WITH V18N8,AUG 1989.  
W1 AP528TE 0160-9963  
A57780000 JC: 38P
- HLI HEALTH COST MANAGEMENT  
HEALTH COST MANAGE  
1N1,OCT 1983--  
HEALTH COST MANAGEMENT  
PHILADELPHIA PA UNITED STATES  
CALLED ALSO: HCM, JAN./FEB. 1985?-  
INDEXING BEGAN WITH V2N1,JAN-FEB 1985 AND  
CEASED WITH V5N4,JUL-AUG 1988.  
W1 HE315R 0740-2406  
SR0055198 JC: GAF
- HLI HEALTH MATRIX  
HEALTH MATRIX  
1N1, WINTER 1983-7N4, WINTER 1989-90  
NATIONAL HEALTH PUBLISHING  
OWINGS MILLS MD UNITED STATES  
A COOPERATIVE EFFORT OF CASE WESTERN  
RESERVE UNIVERSITY SCHOOLS OF: LAW,  
MANAGEMENT, SOCIAL SCIENCES, DENTISTRY,  
MEDICINE, NURSING.  
INDEXING BEGAN IN 1983.  
W1 HE414DF 0748-383X  
H06510000 JC: HEM
- HLI HOSPITAL PHYSICIAN  
HOSP PHYSICIAN  
1,1965--  
PHYSICIANS WORLD COMMUNICATIONS LP  
SECAUCUS NJ UNITED STATES  
INDEXING BEGAN WITH V14N1,JAN 1978 AND  
CEASED WITH V26N4,APR 1990.  
W1 H0869F 0888-2428  
H19780000 JC: GD4
- HLI HUMAN RESOURCE MANAGEMENT  
HUM RESOUR MANAGE  
11,1972--  
UNIVERSITY OF MICHIGAN. GRADUATE SCHOOL OF  
BUSINESS ADMINISTRATION  
ANN ARBOR MI UNITED STATES  
CONTINUES MANAGEMENT OF PERSONNEL  
QUARTERLY. THIS TITLE IS NOT IN THE NLM  
COLLECTION.  
INDEXING CEASED WITH V28N2,SUMMER 1989.  
AHA 0090-4848  
H22480000 JC: GFR
- IM INTERFERON  
INTERFERON  
1,1979-9,1987  
ACADEMIC PRESS  
LONDON ENGLAND  
INDEXING BEGAN WITH V4,1982.  
W1 IN685R 0276-1076  
I19432000 JC: GPD
- HLI JOURNAL OF APPLIED BEHAVIORAL SCIENCE  
J APPL BEHAV SCI  
1,1965--  
NTL INSTITUTE FOR APPLIED BEHAVIORAL SCIENCE  
ARLINGTON VA UNITED STATES  
INDEXING BEGAN WITH V14N1,JAN-MAR 1978 AND  
CEASED WITH V25N2,1989.  
W1 JO539S 0021-8863  
J12800000 JC: HD9
- HLI JOURNAL OF ENVIRONMENTAL HEALTH  
J ENVIRON HEALTH  
26,1963--  
NATIONAL ENVIRONMENTAL HEALTH ASSOCIATION  
DENVER CO UNITED STATES  
COVER TITLE AS SANITARIANS JOURNAL.  
CONTINUES SANITARIAN.  
INDEXING CEASED WITH V52N5,MAR-APR 1990.  
W1 JO644B 0022-0892  
J20080000 JC: IAC
- HLI JOURNAL OF MARKETING FOR MENTAL HEALTH  
J MARK MENT HEALTH  
1N1,FALL/WINTER 1986-2N1,1988  
HAWORTH PRESS  
NEW YORK NY UNITED STATES  
VOL. 1, NO. 1 DATED FALL 1986; V. 1, NO. 2,  
DATED SUMMER 1987-SUMMER 1988. PUBLISHED  
SEMIANNUALLY, V. 2, FALL 1988. CONTINUED  
BY: JOURNAL OF NONPROFIT AND PUBLIC SECTOR  
MARKETING, WHICH IS NOT IN THE NLM  
COLLECTION.  
INDEXING BEGAN WITH V1N1,FALL/WINTER 1986.  
W1 JO748DF 0883-7589  
SR0054265 JC: JMC

- HLI JOURNAL OF MEDICAL PRACTICE MANAGEMENT  
 J MED PRACT MANAGE  
 1N1,JUL 1985--  
 WILLIAMS AND WILKINS  
 BALTIMORE MD UNITED STATES  
 CALLED ALSO: MEDICAL PRACTICE MANAGEMENT.  
 INDEXING BEGAN WITH V1,1985 AND CEASED WITH  
 V5N2,FALL 1989.  
 M1 J0753M 8755-0229  
 SRO052089 JC: JMP
- HLI ORGANIZATIONAL DYNAMICS  
 ORGAN DYN  
 1,1973--  
 AMERICAN MANAGEMENT ASSOCIATION  
 SARANAC LAKE NY UNITED STATES  
 THIS TITLE IS NOT IN THE NLM COLLECTION.  
 INDEXING BEGAN WITH V6N3,WINTER 1978 AND  
 CEASED WITH V18N2,AUTUMN 1989.  
 AHA 0090-2616  
 009940000 JC: NQ2
- IM JOURNAL OF OTOLARYNGOLOGY. SUPPLEMENT  
 J OTOLARYNGOL SUPPL  
 N3,1977-N16,1986  
 ORL MEDICAL PUBLICATIONS  
 TORONTO CANADA  
 CONTINUES: CANADIAN JOURNAL OF  
 OTOLARYNGOLOGY. SUPPLEMENT. NO SUPPLEMENTS  
 PUBLISHED IN 1979.  
 M1 J0812A 0707-7270  
 J33640000 JC: KBE
- HLI RESIDENT AND STAFF PHYSICIAN  
 RESID STAFF PHYSICIAN  
 15N7,1969-  
 RESIDENT  
 WASHINGTON DC UNITED STATES  
 ISSUES OF JAN. 1970- INCLUDE A SECTION  
 CALLED: SURGICAL ROUNDS (PUBLISHED WITH  
 SEPARATE PAGING IN A SPECIAL EDITION JAN.  
 1970-DEC. 1977 AND SUPERSEDED IN PART BY  
 SURGICAL ROUNDS, JAN. 1978). CONTINUES  
 RESIDENT PHYSICIAN. MONTHLY, VOLS.  
 1-32,1969-86; THIRTEEN ISSUES PER YEAR,  
 VOL. 33, 1987-  
 INDEXING CEASED WITH V36N5,MAY 1990.  
 M1 RE245 0034-5555  
 R26080000 JC: RB3
- HLI JOURNAL OF PROFESSIONAL SERVICES MARKETING  
 J PROF SERV MARK  
 1N1-2,1985-86--  
 HAWORTH PRESS  
 NEW YORK NY UNITED STATES  
 THIS TITLE IS NOT IN THE NLM COLLECTION.  
 INDEXING BEGAN WITH V1N1-2,1985-86 AND  
 CEASED WITH V4N2,MAY 1989.  
 AHA 0748-4623  
 SRO055385 JC: JPS
- IDL REVISTA DE LA FACULTAD DE ODONTOLOGIA,  
 UNIVERSIDAD NACIONAL DE TUCUMAN  
 REV FAC ODONTOL TUCUMAN  
 N8,1974-N14,1982  
 UNIVERSIDAD NACIONAL DE TUCUMAN  
 SAN MIGUEL DE TUCUMAN ARGENTINA  
 CONTINUES: REVISTA DE LA ESCUELA DE  
 ODONTOLOGIA, UNIVERSIDAD NACIONAL DE  
 TUCUMAN, FACULTAD DE MEDICINA, WHICH IS NOT  
 IN THE NLM COLLECTION.  
 M1 RE409T 0325-125X  
 R34520000 JC: RYM
- HLI NEW ENGLAND JOURNAL OF HUMAN SERVICES  
 N ENGL J HUM SERV  
 1N1, WINTER 1981--  
 OSIRIS PRESS  
 BOSTON MA UNITED STATES  
 INTRODUCTORY NO. CALLED INAUGURAL ISSUE,  
 ISSUED OCT. 1980.  
 INDEXING BEGAN WITH OCT 1980 AND CEASED  
 WITH V9N2,1989.  
 M1 NE387T 0277-996X  
 N14596000 JC: NJH
- INI TRADIMUS  
 TRADIMUS  
 1,1985-11,AUTUMN 1989  
 RCN TYPESETTING AND PRODUCTION  
 LONDON ENGLAND  
 BECAME INCORPORATED WITHIN: NURSING  
 STANDARD WITH VOL. 4 NO. 31 (1990) OF THE  
 LATTER PUBLICATION.  
 INDEXING BEGAN WITH NO.2,SUMMER 1986.  
 M1 TR1099 0269-0977  
 SRO057691 JC: MAO
- HLI NEW PHYSICIAN  
 NEW PHYSICIAN  
 6,1957--  
 AMERICAN MEDICAL STUDENT ASSOCIATION  
 RESTON VA UNITED STATES  
 BEGINNING VOL 15, 1966-- INCLUDES DOCTOR  
 AND THE LAW WHICH RETAINS SEPARATE VOL  
 NUMBERING. CONTINUES: JOURNAL / STUDENT  
 AMERICAN MEDICAL ASSOCIATION. VOL.28  
 COMPLETE IN 11 ISSUES.  
 INDEXING CEASED WITH V38N7,OCT 1989.  
 M1 NE484I 0028-6451  
 N15400000 JC: O0Y
- HLI VITAL SPEECHES OF THE DAY  
 VITAL SPEECHES DAY  
 1,1934--  
 CITY NEWS PUBLISHING CO.  
 SOUTHOLD NY UNITED STATES  
 THIS TITLE IS NOT IN THE NLM COLLECTION.  
 INDEXING BEGAN WITH V44N3,DEC 1,1977 AND  
 CEASED WITH V55N23,SEP 15,1989.  
 AHA 0042-742X  
 V09000000 JC: XFA
- HLI NURSING HOMES AND SENIOR CITIZEN CARE  
 NURS HOMES SR CITIZ CARE  
 35N6,NOV-DEC 1986--  
 INTERNATIONAL PUBLISHING GROUP  
 CLEVELAND OH UNITED STATES  
 RUNNING TITLE: NURSING HOMES. CONTINUES:  
 NURSING HOMES.  
 INDEXING CEASED WITH V38N3,NOV 1989.  
 M1 NU6097 0029-649X  
 SRO060499 JC: NCC



**MeSH Headings That Cannot Be Selected with the NBR or NBRDET Command**

Listed below are:

1. 1990 MeSH headings that end in two characters preceded by a space, or
2. 1990 MeSH headings that are longer than 36 characters and are truncated by the ELHILL software at the 36th character and therefore end in the pattern of two characters preceded by a space (the slash shows the point of truncation).

Adenosine Triphosphatase, Sodium, Po/tassium  
 Amyloid Protein AA  
 Angiotensin II  
 Antigens, CD  
 Antigens, Ly  
 Aspergillus Nuclease S1  
 BW 284 C 51  
 Chromosomes, Human, Pair 10  
 Chromosomes, Human, Pair 11  
 Chromosomes, Human, Pair 12  
 Chromosomes, Human, Pair 13  
 Chromosomes, Human, Pair 14  
 Chromosomes, Human, Pair 15  
 Chromosomes, Human, Pair 16  
 Chromosomes, Human, Pair 17  
 Chromosomes, Human, Pair 18  
 Chromosomes, Human, Pair 19  
 Chromosomes, Human, Pair 20  
 Chromosomes, Human, Pair 21  
 Chromosomes, Human, Pair 22  
 Complement 1q  
 Complement 1r  
 Complement 1s  
 Complement 3a  
 Complement 3b  
 Complement 3c  
 Complement 3d  
 Complement 4a  
 Complement 4b  
 Complement 5a  
 Cytochrome b5  
 Deja Vu  
 DNA Polymerase II  
 Factor IX  
 Factor Va  
 Factor Xa  
 Factor XI  
 FLA 63  
 Gene Rearrangement, B-Lymphocyte, He/avy Chain

Gene Rearrangement, B-Lymphocyte, Li/ght Chain  
 Glycogen Storage Disease Type II  
 Glycogen Storage Disease Type IV  
 Glycogen Storage Disease Type VI  
 Hemoglobin A2  
 Heparin Cofactor II  
 Histocompatibility Antigens Class II  
 Hyperlipoproteinemia Type IV  
 Immunoglobulins, Fc  
 Infectious Bovine Rhinotracheitis Vi/rus  
 Insulin-Like Growth Factor II  
 Interferon Type II  
 Joint Commission on Accreditation of/ Healthcare Organizations  
 Kininase II  
 Lethal Dose 50  
 Leukemia-Lymphoma, T-Cell, Acute, HT/LV-I-Associated  
 Leukemia, Lymphocytic, Acute, L1  
 Leukemia, Lymphocytic, Acute, L2  
 Lorr's Inpatient Multidimensional Ps/ychiatric Rating Scale  
 Luria-Nebraska Neuropsychological Ba/ttery  
 Malocclusion, Angle Class II  
 Medical Assistance, Title 19  
 National Health Insurance, United St/ates  
 Peptide Elongation Factor Tu  
 Personnel Staffing and Scheduling In/formation Systems  
 Phage Mu  
 Pneumonia, Atypical Interstitial, of/ Cattle  
 Pregnancy-Associated alpha Plasma Pr/otein  
 Prostaglandin D2  
 Rats, Inbred BB  
 Rats, Inbred BN  
 Rats, Inbred WF  
 Receptors, Fc  
 Receptors, Histamine H1  
 Receptors, Histamine H2  
 Receptors, LH  
 RNA Polymerase II  
 RNA, Ribosomal, 5S  
 Sarcoma 37  
 Thromboxane A2  
 Thromboxane B2  
 United States Dept. of Health and Hu/man Services  
 United States Occupational Safety an/d Health Administration  
 Vitamin B 12  
 16,16-Dimethylprostaglandin E2

TOTAL = 84

**NLM ONLINE SERVICES TRAINING**

January - April 1991  
Schedule of Classes

**FUNDAMENTALS OF MEDLARS SEARCHING**

JANUARY	7-11	Los Angeles, CA
	7-11	Omaha, NE
	14-18	Bethesda, MD
FEBRUARY	4- 8	Seattle, WA
	11-15	Dallas, TX
	11-15	New York NY
	25- 1	Bethesda, MD
MARCH	4- 8	Nashville, TN
	18-22	Bethesda, MD
APRIL	1- 5	Los Angeles, CA
	8-12	Boston, MA
	8-12	Bethesda, MD
	15-19	Chicago, IL

**FOLLOW-UP TO THE FUNDAMENTALS**

JANUARY	14-18	New York, NY
	28- 1	Bethesda, MD
MARCH	18-22	Omaha, NE
APRIL	15-19	Los Angeles, CA
	29- 3	Bethesda, MD

REQUEST FOR NLM ONLINE TRAINING

The Fundamentals and Follow-Up courses concentrate on command language searching and thus are not recommended for GRATEFUL MED searchers.

\*\*\*\*\*

DATE: \_\_\_\_\_

TRAINEE NAME: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_ X \_\_\_\_\_

ORGANIZATION: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

User ID code: \_\_\_\_\_ OR I am applying for a User ID code\*

\*STOP! If you are currently applying for a User ID code, be sure to include the complete "NLM Online Application Form" with you training request.

TRAINING CLASS INFORMATION: You may apply for either the "Fundamentals" or the "Follow-Up" class but NOT both. Check all the modules you will attend.

1. FUNDAMENTALS OF MEDLARS SEARCHING

- a. Module 1 - Intro to MEDLARS/MEDLINE (Monday-Wednesday) \_\_\_\_\_
- b. \* Module 2 - Chemical/Toxicological Databases (Thursday) \_\_\_\_\_
- c. \* Module 3 - Cancer Databases (Friday morning) \_\_\_\_\_

\*Must have attended Module 1 prior to attending these modules.

DATES/SITES REQUESTED: \_\_\_\_\_ 1st Choice \_\_\_\_\_ 2nd Choice

2. FOLLOW-UP TO THE FUNDAMENTALS: (Requires familiarity with MEDLARS.)

- a. Module 1 - MEDLINE/MeSH/Health Search Skills (Monday) \_\_\_\_\_
- b. Module 2 - Cancer Information Searching (Tuesday a.m.) \_\_\_\_\_
- c. Module 3 - POPLINE/BIOETHICS/HISTLINE (Tuesday p.m.) \_\_\_\_\_
- d. Module 4 - Technical Services Databases (Wednesday) \_\_\_\_\_
- e. Module 5 - CHEMLINE/TOXLINE/TOXLIT Searching (Thursday) \_\_\_\_\_
- f. Module 6 - Tips & Techniques for TOXNET (Friday) \_\_\_\_\_

DATES/SITES REQUESTED: \_\_\_\_\_ 1st Choice \_\_\_\_\_ 2nd Choice

MAIL TRAINING REQUEST TO: MEDLARS Management Section  
National Library of Medicine  
8600 Rockville Pike, Bldg. 38A  
Bethesda, Maryland 20894

QUESTIONS?  
Call: 800/638-8480 or  
301/496-6193

\*\*\*\*\*  
NLM USE ONLY - Please do not write in this area.

Site: "FUNDAMENTALS" \_\_\_\_\_ Site: "FOLLOW-UP" \_\_\_\_\_

Class Dates: \_\_\_\_\_ Class Dates: \_\_\_\_\_



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SPRINGFIELD, VA 22161

# NTIS ORDER FORM

**TELEPHONE ORDERS**      TELEX 89-9405    Telecopier (703) 321-8547    Subscriptions: (703) 487-4630  
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- HANDLING FEE: A handling fee is required for each order except for Express, Rush, Subscription, or Pickup orders.
- SHIPPING:    U.S.: Printed reports and microfiche copies are shipped First Class Mail or equivalent.  
                  FOREIGN: Regular service: Printed reports and microfiche copies are shipped surface mail.  
  Air Mail service to Canada and Mexico: add \$3 per printed report; 75¢ per microfiche copy.  
  Air Mail service to all other addresses: add \$6 per printed report; 75¢ per microfiche copy.  
  SUBSCRIPTIONS and standing orders are sent surface mail; contact NTIS for air mail rates.

## 1 Address Information

PURCHASER:      DATE: _____		DTC Users Code: _____ Contract No. _____	
SHIP TO (Enter ONLY if different from purchaser):			
Last Name _____	First Initial _____	Last Name _____	First Initial _____
Title _____		Title _____	
Company/Organization _____		Company/Organization _____	
Address _____		Address _____	
City/State/ZIP _____		City/State/ZIP _____	
Attention _____		Attention _____	
Telephone number _____		Telephone number _____	

## 2 Method of Payment

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Charge my <input type="checkbox"/> Amer. Express <input type="checkbox"/> VISA <input type="checkbox"/> MasterCard	<input type="checkbox"/> Please bill ADD \$7.50 per Order (See below for restrictions)†
Account No. _____ Exp. _____	Purchase Order No. _____
Signature: _____	Employer Identification No. _____
<small>(Required to validate all orders)</small>	

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Enter NTIS order number(s) (Ordering by title only will delay your order)	Customer Routing †† (up to 8 digits)	QUANTITY			UNIT PRICE	Foreign Air Mail	TOTAL PRICE
		Paper Copy	Microfiche				
1.							
2.							
3.							
4.							
5.							
6.							
7.							

OVER - Order continued on reverse

† Billing Service: This service is restricted to U.S. addresses for an additional \$7.50 per order. Your business employer identification number plus phone number of the office paying the bill are required. A late payment charge will be applied to all billings more than 30 days overdue.

†† Customer Routing Code: NTIS can label each item for routing within your organization. If you want this service, put your routing code in this box.

Rev. 3/1987

<b>SUBTOTAL From Other Side</b>	
Regular Service Handling Fee per order (\$3 U.S., Canada, Mexico; \$4 others)	
Billing Fee if required (\$7.50)	
<b>GRAND TOTAL</b>	

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		Paper Copy	Micro- fiche			
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9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
					Subtotal	

**ENTER this amount on the  
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## 4 Computer Products Order Selection

If you have questions about a particular computer product, please call our Computer Products Support Group at (703) 487-4763.

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		1600bpi	8250bpi	
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21.				
22.				
23.				
				Subtotal

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\_\_\_\_\_  
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Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

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**NLM TECHNICAL BULLETIN JULY-AUGUST 1990**

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# THE NLM

GRATEFUL MED Users  
Rerunning an Aborted Search - p.17

ISSN 0146-3055

June 1990

No. 254

# Technical Bulletin

## Topical Subheadings - History of Availability

### In This Issue:

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The presentation of subheading information in the introductory pages of the 1990 Annotated Alphabetic MeSH was designed to consolidate the numerous arrays of earlier years and to show in a single location the essential data on subheading history.

Because the application of subheadings to various categories has expanded significantly in the past few years, it has become increasingly unwieldy to carry the history information as part of introductory lists.

To that end, MeSH<sup>®</sup> has undertaken a project to review subheading usage from 1966 to the present in order to bring up to date the information on category assignments since that time. The resulting data are presented on pages 7 - 16 in alphabetic order by subheading.

Continued on page 5



**NLM TECHNICAL BULLETIN JUN 90**

MEDLARS DATABASE	TOTAL RECORDS	DATES COVERED	DATE LAST UPDATED	LATEST UPDATE TAG
<b>ELHILL COMPUTER</b>				
AIDSDRUGS	84		17 JUN 90	
AIDSLINE**™	33,603	JAN 80-AUG 90	23 JUN 90	9008(EM)
AIDSTRIALS	244		02 JUN 90	
AVLINE®	20,687	THROUGH 1990	21 JUN 90	
BIOETHICS®	30,102	JAN 73-MAY 90	09 JUN 90	9006(EM)
CANCERLIT®	736,192	JAN 63-JUN 90	02 JUN 90	9006(EM)
CATLINE®	664,415	THROUGH 1990	21 JUN 90	
CHEMID	182,003		27 FEB 90	
CHEMLINE®	907,805		10 FEB 89	9002(EM)
CLINPROT®	7,782		23 JUN 90	9006(EM)
DENTALPROJ™	784		28 FEB 90	
DIRLINE®	17,046		28 FEB 90	
DOCUSER®	11,925		02 JUN 90	
HEALTH	505,289	JAN 75-JUL 90	02 JUN 90	9007(EM)
HISTLINE®	93,789		23 JUN 90	9005(EM)
MEDLINE*®	789,571	JAN 88-AUG 90	23 JUN 90	9008(EM)
MED86	651,846	JAN 86-DEC 87	26 MAY 90	
MED83	890,553	JAN 83-DEC 85	16 JUN 90	
MED80	803,372	JAN 80-DEC 82	16 JUN 90	
MED77	775,781	JAN 77-DEC 79	09 DEC 89	
MED72	1,175,516	JAN 72-DEC 76	09 JUN 90	
MED66	1,310,458	JAN 66-DEC 71	02 JUN 90	
MESH VOC®	72,724	1990	23 JUN 90	
NAME AUTH®	347,762		23 JUN 90	
PDQ®		THRU JUN 90	01 JUN 90	
POPLINE®	174,772	1970-JUN 90	09 JUN 90	9006(EM)
SDILINE®	28,226	JUL 90	26 MAY 90	9007(EM)
SERLINE®	74,696	1990	05 JUN 90	
TOXLINE®	827,133	1981-1990	09 JUN 90	9006(EM)
TOXLINE65	707,374	PRE 1965-1980	31 MAR 90	
TOXLIT®	837,426	1981-1990	09 JUN 90	9006(EM)
TOXLIT65	586,405	1965-1980	01 SEP 87	

\*N.B. FILE IS UPDATED WEEKLY; THIS IS PART 4 OF 5.

\*\*N.B. FILE IS UPDATED WEEKLY; THIS IS PART 4 OF 6.

**TOXNET® COMPUTER**

CCRIS	2,190		13 MAR 90
DART™	2,341		06 JUN 90
DBIR®	1,460		18 JUN 90
EMICBACK	67,975		02 JUN 89
ETICBACK	46,374		30 JAN 89
HSDB®	4,211		18 JUN 90
IRIS	401		04 JUN 90
RTECS	104,322		05 JUN 90
TRI87	76,737		20 NOV 89
TRI88	80,228		29 MAY 90

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## Technical Notes

Whenever applicable, the heading of each Technical Note includes a reference to the section of the Online Service Reference Manual, 1988 that is considered most relevant to the item being discussed, e.g., (Manual 4.7.2). Users should keep in mind that the item may pertain to other sections as well.

### AIDSTRIALS UPDATED

Several enhancements were added to AIDSTRIALS as of May 15. MeSH searching is now available in the file; complete MeSH searching capabilities can now be used including subheadings and EXPLODEs. The MeSH headings are now in the MeSH Heading (MH) field. The Keyword field which formerly contained the MeSH headings has been deleted.

It is now possible to limit the printing of trial locations to specific states. For example, to search for all trials that are taking place in Houston, TX, enter the search term "Houston" unqualified. This will search the CITY field. The system will search for an unqualified term in several fields. If the term exists in more than one field, a multi-meaning message will result. To print any state use the two character postal code prefaced by ST. For example, to print just the locations in Texas, issue the command PRT STTX. (Where TX stands for Texas.) For trials located in the U.S. territories or outside the U.S., the field is called STOT (Other).

To print all locations, enter PRT SITE. PRT SITE is a new print format. Note that with PRT SITE just the trial locations are printed; no other information to identify the trial is included (such as Unique Identifier, Title, Description, etc.). Therefore, we recommend that most often you will also want to print other descriptive information, for example, PRT AR, SITE or PRT SD, SITE.

When searching for drugs used in trials, just enter the drug name unqualified. If a multi-meaning message results, select the value with (SID) after it. SID is the abbreviation for Substance Identification field.

### **\*\*MEDLEARN\*\* DISCONTINUED**

The National Library of Medicine has discontinued

**\*\*MEDLEARN\*\*** as of July 2, 1990. It was discontinued by the National Library of Medicine for several reasons:

- 1) A great number of users are searching via GRATEFUL MED which has its own computer-based training package called "How To";
- 2) The PC-computer-based training package MEDTUTOR is available;
- 3) The Basics of Searching MEDLINE self-instructional training publication was recently updated and is available; and
- 4) Updating **\*\*MEDLEARN\*\*** represented too great an investment for an outdated mainframe technology.

### CHANGES TO PDQ

PDQ was updated on May 12, 1990 with Release 90.1. Several important changes were made:

1. Over 5,000 closed protocols (those no longer accepting patients) have been added to PDQ. Closed protocols have the same format as active protocols.

A new option, Protocol Status, has been added to the Clinical Trials menu. Protocol Status is automatically set to ACTIVE when you first enter PDQ. Selecting the new Protocol Status option provides a menu to reset protocol status for retrieval of closed protocols. In addition, closed protocol retrieval can be narrowed based on the year the protocol closed.

The menu options for active protocols are used when searching for closed protocols, although some options may not produce the same results. Please see the PDQ online news for further information.

2. The cost of an online PDQ session now displays as follows message when you log off:

PDQ SESSION STARTED AT 14:22 AND ENDED  
AT 15:10 ON 05/11/90  
PDQ SESSION LASTED 0 HR 48 MIN  
ESTIMATED COST OF SESSION IS \$18.72 -  
REGULAR DOMESTIC RATE

**CNL (AI) TAG ADDED TO SERLINE**  
(Manual 11.3.2)

A new value has been added to the Abstracting & Indexing Tags (AI) field in SERLINE. This new value is "CNL" and has been added to SERLINE records for titles indexed in the Cumulative Index to Nursing and Allied Health Literature as listed in the section "Journals and Serials Indexed" in the Annual Cumulation of Volume 34, 1989. This list will be reviewed annually for any changes and SERLINE will be updated accordingly. This value will be added beginning with the June update to SERLINE. A record from SERLINE is shown below which has the CNL tag.

USER:  
prt index

PROG:

1  
TI - NURSING SCIENCE QUARTERLY  
TA - Nurs Sci Q  
FL - 1,1988-  
PL - BALTIMORE MD  
CY - UNITED STATES  
LA - ENG  
ZN - Z1.107.567.875  
AI - INI  
AI - CNL  
II - INDEXING BEGAN WITH V1N1,FEB 1988.  
IS - 0894-3184  
JC - OBH  
SB - N  
LI - N  
IA - 880412  
XS - 1  
RI - A  
UI - SR0060837

**MESH HEADINGS FOR EXERCISE**

Please note that the MeSH heading EXERCISE is restricted to humans. To search for exercise in animals, use the MeSH headings PHYSICAL CONDITIONING, ANIMAL or EXERTION or (rarely) MOTOR ACTIVITY. These animal terms are described below:

PHYSICAL CONDITIONING, ANIMAL is used if the animal is repeatedly "exercised" over an extended period of time (weeks or months).

EXERTION is used if the immediate physiologic, metabolic or other effects of a bout of "exercise" are being studied (e.g., if the study involves measuring blood levels of a drug in rats as they come off the treadmill or taking a dog's EKG as it exercises.)

MOTOR ACTIVITY is more rarely appropriate, and is used if the animal's "exercise" is an alternative to immobilization.

Note that EXERCISE THERAPY and PHYSICAL FITNESS should also be limited to humans. PHYSICAL CONDITIONING, HUMAN is a see reference to EXERCISE THERAPY. The animal equivalent of PHYSICAL FITNESS is PHYSICAL CONDITIONING, ANIMAL.

**CORRECTION TO A TECHNICAL NOTE**

The March 1990 issue of the *Technical Bulletin* contains an error in the Technical Note on page 5 titled "CORRECTIONS TO THE 1990 MESH". The tree numbers for the heading SINUSITIS were inadvertently printed incorrectly. The numbers (C.730.749+ and C9.659.752+) should be replaced by the correct numbers: C8.730.749+ and C9.692.752+.

**CHEMLINE AND TOXLINE POCKET CARDS**

Pocket cards for both the CHEMLINE and TOXLINE databases have been revised. Copies of these two pocket cards may be requested without charge by writing to the Specialized Information Services (SIS), National Library of Medicine, 8600 Rockville Pike, Bethesda, MD 20894. Please enclose a self-addressed mailing label. No return postage is necessary.

**GRATEFUL MED POCKET CARD ENCLOSED**

Enclosed with this issue you'll find the GRATEFUL MED pocket card for the IBM Version 5.0. It can be folded into thirds and should be kept in a handy spot near your GRATEFUL MED computer.



Continued from page 1

Beginning with the publication of the 1992 MeSH, this history information will be carried in the history note (HN) appearing with each subheading in the Annotated Alphabetic MeSH and in the online MeSH Vocabulary File.

Please remember that MeSH heading/subheading combinations on older records are usually not class-maintained at the end of the year. This means that if you are doing a MEDLINE search, you may need to adjust your strategy for various usage rules over the years.

Users are reminded that the information on subheading assignment by category for 1990 is presented as a general guide to subheading usage in MEDLINE; for precise information on current allowable MeSH Heading/subheading combinations, the Allowable Topical Qualifiers (AQ) field in the MeSH Vocabulary file should be consulted and/or the NEIGHBOR DETAILED (NBRDET) command may be used in MEDLINE its backfiles, and other ELHILL bibliographic files using MeSH. For example, usage of the economics subheading has been significantly broadened since its introduction in 1978 which the following MeSH file search illustrates:

```
SS 1 /C?
USER:
file mesh

PROG:
YOU ARE NOW CONNECTED TO THE MESH
VOCABULARY (1990) FILE.
```

```
SS 1 /C?
USER:
smoking (mh)
```

```
PROG:
SS (1) PSTG (1)
```

```
SS 2 /C?
USER:
prt mh,aq

PROG:
1
MH - Smoking
AQ - AE BL CF DT EC EH EP GE HI IM LJ ME MO PA PC
PP PX TD TH UR
```

As you can see by the presence of EC in the AQ field, the use of /economics with SMOKING is permitted. The lack of the term SMOKING (and its indentions) on the 1990 line in the following chart under economics does not mean that /economics is prohibited for use with these terms.

On the other hand, some headings may show a subheading as being permitted, yet there may be no or few articles actually indexed with that heading/subheading combination.

Using the NBRDET command will show whether a particular MeSH heading/subheading combination has actually been used and how many citations are in the file under the subheadings shown. For example:

```
SS 1 /C?
USER:
file medline

PROG:
YOU ARE NOW CONNECTED TO THE MEDLINE (1988 -
90) FILE.
```

```
SS 1 /C?
USER:
nbrdet smoking
```

```
PROG:

SELECT #   POSTINGS   TERM
91          1          SMOKEY (TW)
92          1          SMOKINESS (TW)
93         4492         SMOKING (MH)
94         4268         SMOKING (TW)
95         1639         SMOKING/AE (MH)
UP N OR DOWN N OR ENTER A SELECT COMMAND.
```

```
USER:
10
PROG:
```

```
SELECT #   POSTINGS   TERM
96         224         SMOKING/BL (MH)
97         31         SMOKING/DT (MH)
98         56         SMOKING/EC (MH)
99         44         SMOKING/EH (MH)
100        468         SMOKING/EP (MH)
101         26         SMOKING/GE (MH)
102         10         SMOKING/HI (MH)
103         52         SMOKING/IM (MH)
104         61         SMOKING/LJ (MH)
```

USER:  
10  
PROG:

SELECT #	POSTINGS	TERM
106	77	SMOKING/MO (MH)
107	51	SMOKING/PA (MH)
108	700	SMOKING/PC (MH)
109	4	SMOKING/PH (MH)
110	247	SMOKING/PP (MH)
111	335	SMOKING/PX (MH)
112	1	SMOKING/SN (MH)
113	54	SMOKING/TD (MH)
114	132	SMOKING/TH (MH)
115	32	SMOKING/UR (MH)

UP N OR DOWN N OR ENTER A SELECT COMMAND.

USER:  
10

PROG:

SELECT #	POSTINGS	TERM
116	2473	*SMOKING (MH)
117	704	*SMOKING/AE (MH)
118	108	*SMOKING/BL (MH)
119	25	*SMOKING/DT (MH)
120	20	*SMOKING/EC (MH)
121	14	*SMOKING/EH (MH)
122	191	*SMOKING/EP (MH)
123	11	*SMOKING/GE (MH)
124	5	*SMOKING/HI (MH)
125	26	*SMOKING/IM (MH)

UP N OR DOWN N OR ENTER A SELECT COMMAND.

USER:  
10  
PROG:

SELECT #	POSTINGS	TERM
126	32	*SMOKING/LJ (MH)
127	94	*SMOKING/ME (MH)
128	34	*SMOKING/MO (MH)
129	26	*SMOKING/PA (MH)
130	453	*SMOKING/PC (MH)
131	2	*SMOKING/PH (MH)
132	132	*SMOKING/PP (MH)
133	141	*SMOKING/PX (MH)
134	26	*SMOKING/TD (MH)
135	103	*SMOKING/TH (MH)

UP N OR DOWN N OR ENTER A SELECT COMMAND.

USER:

10  
PROG:

SELECT #	POSTINGS	TERM
136	18	*SMOKING/UR (MH)
	.	
	.	
	.	

This example shows that although the subheading cerebrospinal fluid (CF) is permitted with the heading SMOKING, in fact there are no citations in the current file that have been indexed with this combination. The NBRDET command is an excellent method of verifying what is actually there in the file you are searching.

abnormalities

66-74 A  
 75-88 A1-9, A13-15  
 89 A1-9, A13-15, B2  
 90 A1-10, A13-14, A16, B2

administration & dosage

66-90 D

adverse effects

66-69 D, E, H  
 70-74 D, E, H, J  
 75-81 D, E, F4, H, J  
 82-87 D, E, F4, G3, H, J  
 88 D, E, F4, H, J, SMOKING  
 89 D, E, F4, H, J, SMOKING+  
 90 D, E, J

analogs & derivatives

75-89 D1-7, D9-26  
 90 D2-7, D9, D11, D14-23

analysis

67 A, B, D  
 68-74 A, B, D, G, J  
 75-86 A, B1, B3-6, C4, D, G3, J  
 87 A, B1, B3-6, C4, D, G3, J, ASCITIC FLUID, CALCULI+  
 88-89 A, B1, B3-6, C4, D, G3, J, ASCITIC FLUID,  
 BRONCHOALVEOLAR LAVAGE FLUID, CALCULI+  
 90 A2-16, B1, B3-6, C4, D, J

anatomy & histology

66-74 A, B  
 75-89 A, B1-2, B5-6  
 90 A1-10, A13-14, A16, B1-2, B6

antagonists & inhibitors

68-89 D  
 90 D1-24

biosynthesis

66-89 D  
 90 D8-9, D12-13, D24

+ indicates that the subheading may be applied to all terms indented under the heading listed.

blood

67-74 C, D, F  
 75-86 B2, C, D, F3  
 87 B2, C, D, F3, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+,  
 PUBERTY+, PUERPERIUM+  
 88 B2, C, D, F3, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+,  
 PUBERTY+, PUERPERIUM+, SMOKING  
 89 B2, C, D, F3, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+,  
 PUBERTY+, PUERPERIUM+, SMOKING+  
 90 B2, C, D1-24, F3

blood supply

66-74 A  
 75 A1-6, A8-10, A13-16  
 76-89 A1-6, A8-10, A13-16, C4  
 90 A1-6, A8-10, A13-14, C4

cerebrospinal fluid

67-74 C, D, F  
 75-86 B2, C, D, F3  
 87 B2, C, D, F3, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+,  
 PUBERTY+, PUERPERIUM+  
 88 B2, C, D, F3, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+,  
 PUBERTY+, PUERPERIUM+, SMOKING  
 89 B2, C, D, F3, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+,  
 PUBERTY+, PUERPERIUM+, SMOKING+  
 90 B2, C, D1-24, F3

chemical synthesis

68-90 D

chemically induced

67-74 C, F  
 75-90 C, F3

classification

66 B  
 67 B, C, D, E, F, G, H, I  
 68-74 B, C, D, E, F, G, H, I, N  
 75-79 B, C, D, E, F, G, H, I, J, K, L, M, N  
 80-89 A11, B, C, D, E, F, G, H, I, J, K, L, M, N  
 90 B, C, D, E, F2-4, G1-2, G12, I, J, M, N2-4

complications

66-74 C, F  
 75-90 C, F3

congenital

66-74 C  
75-90 C1-15, C17-23

cytology

66-85 A, B  
86 A, B1, B3, B5-6  
87 A, B1, B3, B5-6, ASCITIC FLUID  
88-89 A, B1, B3, B5-6, ASCITIC FLUID, BRONCHOALVEOLAR  
LAVAGE FLUID  
90 A2-10, A12-16, B1, B3, B5-6

deficiency

75-89 D  
90 D8, D12-13, D24

diagnosis

66-74 C, F  
75-90 C, F3

diagnostic use

67-89 D, H  
90 D

diet therapy

75-90 C, F3

drug effects

66 A, B, G  
67-74 A, B, F, G  
75-81 A, B, F1-2, G4-11  
82 A, B1, B3-6, F1-2, G4-11  
83-86 A, B1, B3-6, F1-2, G4-12  
87-88 A, B1, B3-6, F1-2, G4-12, BLOOD PROTEINS+, DNA+,  
RNA+  
89 A, B1, B3-6, F1-2, G4-12, BLOOD PROTEINS+  
NUCLEIC ACIDS+  
90 A2-16, B1, B3-6, D12, G4-12

drug therapy

66-74 C, F  
75-87 C, F3  
88 C, F3, SMOKING  
89 C, F3, SMOKING+  
90 C, F3

economics

78-79 C, E, F3, N2-4  
80-87 C, E, F3-4, G1-3, I2, J, L, N2-4  
88 C, E, F3-4, G1-3, I2, J, L, N2-4, SMOKING  
89 C, E, F3-4, G1-3, I2, J, L, N2-4, SMOKING+  
90 C, E, F3-4, G1-2, I2-3, J, N2-4

education

67 F, G, H, I  
 68-71 F, G, H, I, N  
 72-74 F, G, H, I, M, N  
 75-89 E, F, G1-3, H, I, J, K, L, M, N1-2  
 90 F4, G1-2, I3, M

embryology

66 A  
 67-69 A, B  
 70-74 A, B, C  
 75-89 A1-10, A13-15, B1-2, B6, C  
 90 A1-10, A13-14, B1-2, B6, C

enzymology

66-67 A, B  
 68-74 A, B, C, F  
 75-89 A, B1, B3-6, C, F3  
 90 A2-16, B1, B3-6, C, F3

epidemiology

89 C, F3, SMOKING+  
 90 C, F3, Z

ethnology

75-86 Z  
 87 C, F3, Z, AGING, ALCOHOL DRINKING,  
 CLIMACTERIC+, FOOD HABITS, PUBERTY+  
 88 C, F3, Z, AGING, ALCOHOL DRINKING,  
 CLIMACTERIC+, FOOD HABITS, PUBERTY+,  
 SMOKING  
 89 C, F3, Z, AGING, ALCOHOL DRINKING,  
 ATTITUDE+, CLIMACTERIC+, FAMILY+,  
 FOOD HABITS, HOMOSEXUALITY, PUBERTY+,  
 SMOKING+  
 90 C1-21, C23, F3, Z

etiology

66-74 C, F  
 75-90 C, F3

familial & genetic

66-74 C, F  
 75-88 C, F3

genetics

78-86 B, D6, D8-13, D24  
 87-88 B, D6, D8-13, D24, AGING, CLIMACTERIC+,  
 DRUG RESISTANCE+, PIGMENTATION+, PUBERTY+  
 89 B, C, D6, D8-13, D24, F3, AGING, CLIMACTERIC+,  
 DRUG RESISTANCE+, ETHNIC GROUPS+,  
 PIGMENTATION+,  
 PUBERTY+, RACIAL STOCKS+  
 90 B, C, D8-9, D11-13, D24, F3, G4-12

growth

66-74 A, B  
 75-86 A1-9, A13-15, B  
 87-89 A1-9, A13-15, B, INFANT, NEWBORN+  
 90 A1-10, A13-14, B

history

66-67 C, D, E, F, G, H, I, J, K, L, M  
 68-74 C, D, E, F, G, H, I, J, K, L, M, N  
 75-89 C, D, E, F, G1-3, H, I, J, K, L, M, N  
 90 C, D, E, F3-4, G1-2, I2-3, J, M, N2-3

immunology

66-67 B, C  
 68-69 A, B, C  
 70-74 A, B, C, F  
 75-86 A, B, C, F3  
 87 A, B, C, D, F3, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+,  
 PUBERTY+, PUERPERIUM+  
 88 A, B, C, D, F3, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+  
 PUBERTY+, PUERPERIUM+, SMOKING  
 89 A, B, C, D, F3, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+,  
 PUBERTY+, PUERPERIUM+, SMOKING+  
 90 A2-16, B, C, D1-24, F3, G4-12

injuries

66 C  
 67-74 A  
 75-88 A1-9, A13-15  
 89 A1-9, A13-15, B2  
 90 A1-10, A13-14, B2

innervation

66-74 A  
 75 A1-9, A13-16  
 76-89 A1-7, A9, A13-16  
 90 A1-7, A9-10, A13-14, A16

instrumentation

66-67 E, F, G, H  
 68-74 E, F, G, H, J  
 75-81 E, F2, F4, G1-3, H, J, L  
 82-89 E1-6, F2, F4, G1-3, H, J, L  
 90 E1-6, F4, G1-2

isolation & purification

66-68 B  
 69-74 B, D  
 75-89 B1, B3-5, D  
 90 B1, B3-5, D

legislation & jurisprudence

78-87 I1-2, N2-4  
 88 I1-2, L, N2-4, SMOKING  
 89 G2-3, I1-2, L, N2-4, SMOKING+  
 90 G1-2, I2-3, N2-4

manpower

68-74 E, F, G, H, I, L, N  
 75-85 E6, F4, G1-2, H, I, J, L, N2-4  
 86-87 E6, F4, G1-2, H, J, L, N2-4  
 88-89 E6, F4, G1-2, H, I, J, L, N2-4  
 90 E6, F4, G1-2, N2

metabolism

66-74 A, B, C, D, F  
 75-86 A, B, C, D, F3  
 87 A, B, C, D, F3, AGING, CLIMACTERIC+, INFANT, NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+, PUBERTY+, PUERPERIUM+  
 88 A, B, C, D, F3, AGING, CLIMACTERIC+, INFANT, NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+, PUBERTY+, PUERPERIUM+, SMOKING  
 89 A, B, C, D, F3, AGING, CLIMACTERIC+, INFANT, NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+, PUBERTY+, PUERPERIUM+, SMOKING+  
 90 A2-16, B, C, D, F3

methods

75-81 E, F4, G1-3, H, I, J, L, N  
 82-89 E1-6, F4, G1-3, H, I, J, L, N  
 90 E1-6, F4, G1-2, I2

microbiology

67-74 A, C  
 75-86 A, B1-2, B6, C, F3  
 87-89 A, B1-2, B6, C, F3, INFANT, NEWBORN+  
 90 A, B1-2, B6, C, F3

mortality

67-74 C, E, F  
 75-87 C, E, F3-4  
 88 C, E, F3-4, SMOKING  
 89 C, E, F3-4, ACCIDENTS+, SMOKING+  
 90 C, E4, F3

nursing

66-69 C, F  
 70-74 C, E, F  
 75-90 C, E, F3

occurrence

66-74 C, F  
 75-87 C, F3  
 88 C, F3, SMOKING



organization & administration

78-79 N2-4  
 80-88 I2, L, N2-4  
 89 G2, I2, L, N2-4  
 90 G1-2, I2, N2-4

parasitology

75-86 A, B1-2, B6, C, F3  
 87-89 A, B1-2, B6, C, F3, INFANT, NEWBORN+  
 90 A, B1-2, B6, C, F3

pathogenicity

66-74 B  
 75-90 B1, B3-5

pathology

66-74 A, C, F  
 75-86 A, C, F3  
 87 A, C, F3, AGING  
 88 A, C, F3, AGING, BRONCHOALVEOLAR LAVAGE FLUID,  
 SMOKING+  
 89 A, C, F3, AGING, SMOKING+  
 90 A1-11, A13-16, C, F3

pharmacodynamics

67-87 D

pharmacokinetics

88-90 D

pharmacology

66 D  
 88-90 D

physiology

66 A, B, G  
 67-69 A, B, D, G  
 70-74 A, B, D  
 75-86 A, B, D, F1-2  
 87-89 A, B, D, F1-2, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+,  
 PUBERTY+, PUERPERIUM+  
 90 A, B, D8, D11-13, D24, F2, G4-12

physiopathology

66-74 A, C, F  
 75-87 A, C, F3  
 88 A, C, F3, SMOKING  
 89 A, C, F3, SMOKING+  
 90 A1-10, A13-16, C, F3

poisoning

66-67 D  
 68-90 D, J

prevention & control

66-67 C, F  
 68-74 C, F, G  
 75-89 C, F1, F3, G3, I1  
 90 C, F3

psychology

78-79 C, E1-6, F3  
 80-86 C, E1-6, F3, M  
 87 C, E1-6, F3, M, AGING, ALCOHOL DRINKING,  
 CLIMACTERIC+, FOOD HABITS, PREGNANCY+,  
 PUBERTY+, PUERPERIUM+  
 88 C, E1-6, F3, M, AGING, ALCOHOL DRINKING,  
 CLIMACTERIC+, FOOD HABITS, PREGNANCY+,  
 PUBERTY+, PUERPERIUM+, SMOKING  
 89 C, E1-6, F3, M, AGING, ALCOHOL DRINKING,  
 CLIMACTERIC+, FOOD HABITS, HOMOSEXUALITY,  
 PREGNANCY+, PUBERTY+, PUERPERIUM+, SMOKING+  
 90 B2, C, E1-6, F3, I3, M

radiation effects

66-67 A, B, G  
 68-74 A, B, D, G  
 75-84 A, B, D, F1-2, G4-12, J  
 85-89 A, B1, B3-5, D, F1-2, G4-12, J  
 90 A, B1, B3-6, D, F1-2, G4-12, J

radiography

67 A, C  
 68-74 A, C, F  
 75-77 A, C, F3  
 78-88 A, C  
 89 A, C, F3  
 90 A, B2, C, F3

radionuclide imaging

78-88 A, C  
 89 A, C, F3  
 90 A, B2, C, F3

radiotherapy

66-74 C, F  
 75-90 C

rehabilitation

67-74 C, F  
 75-79 C, F3  
 80-89 C, E4, F3  
 90 C1-21, C23, E4, F3

secondary

80-90 C4

secretion

68-75 A, D  
 76-89 A, C4, D  
 90 A2-16, C4, D8-9, D11-12, D24

standards

68 D, E, H, I, J, L, N  
 69-74 D, E, F, H, I, J, L, N  
 75-89 D, E, F4, G1-3, H, I, J, L, N  
 90 D, E, F4, G1-2, I2-3, J, N2-4

statistics & numerical data

89 E, F1-2, F4, G1-3, H, I, J, K, L, M, N  
 90 E, F4, G1-2, I, J, M, N2-4

supply & distribution

68-74 D, E, L, N  
 75-87 D, E, F4, H, I, J, L, N2-4  
 88 D, E, F4, H, I, J, L, N  
 89 D, E, F4, G1-3, H, I, J  
 90 D, E7, J, N2

surgery

66-74 A, C, F  
 75 A, C, F3  
 76-89 A, B2, C, F3  
 90 A1-10, A13-14, A16, B2, C, F3

therapeutic use

66 D  
 67-89 D, H  
 90 D

therapy

66-74 C, F  
 75-87 C, F3  
 88 C, F3, SMOKING  
 89 C, F3, SMOKING+  
 90 C, F3

toxicity

66-67 D  
 68-90 D, J

transmission

75-89 C  
 90 C1-3

transplantation

66-89 A  
 90 A2-11, A13-16

trends

78-79 F4, G1-3, I, N  
 80-86 E, F4, G1-3, I, N  
 87 E, F4, G1-3, I, L, N  
 88 E, F4, G1-3, I, L, N, SMOKING  
 89 E, F4, G1-3, I, L, M, SMOKING+  
 90 E, F4, G1-2, I2-3, N2-4

ultrastructure

75 A, B  
 76-77 A, B, C4  
 78-86 A1-11, A13-16, B, C4  
 87-88 A1-11, A13-16, B, C4, CALCULI+, DNA+, RNA+  
 89 A1-11, A13-16, B1, B3-6, C4, CALCULI+,  
 NUCLEIC ACIDS+, PROTEINS+  
 90 A2-11, A13-16, B1, B3-6, C4

urine

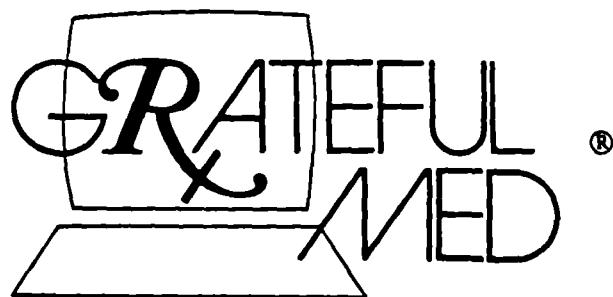
67-74 C, D, F  
 75-86 B2, C, D, F3  
 87 B2, C, D, F3, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+,  
 PUBERTY+, PUERPERIUM+  
 88 B2, C, D, F3, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+,  
 PUBERTY+, PUERPERIUM+, SMOKING  
 89 B2, C, D, F3, AGING, CLIMACTERIC+, INFANT,  
 NEWBORN+, PREGNANCY+, PREGNANCY, ANIMAL+,  
 PUBERTY+, PUERPERIUM+, SMOKING+  
 90 B2, C, D1-24, F3

utilization

68-74 E, L, N  
 75-89 E, G1-3, H, I, J, L, N  
 90 E, N2-4

veterinary

66 C  
 67-74 C, E  
 75-86 C1-21, C23, E  
 87-89 C1-21, C23, E, DISEASE OUTBREAKS, DISEASE  
 RESERVOIRS  
 90 C1-21, C23, E



VERSION 5.0

Please remember that this is the last regular GRATEFUL MED column that will appear in the *Technical Bulletin*. Beginning in July 1990 look for this feature exclusively in *Gratefully Yours*.



*Question: I was downloading a large number of references and half way through I was disconnected. Do I have to rerun the search and download the first half again to get the second half?*

**Answer:** No. With a little modification, it is possible to get around this problem. The idea is to edit the file that is sent to the NLM computer with your search strategy and print command so that it includes a command to skip the references you already downloaded. The file to edit is called SRCH. The editing can be done using "TED," a text editor that comes with Version 5.0. Here are the steps using as an example a search that was aborted after reference #23:

1. Exit (or QUIT) GRATEFUL MED.
2. At the DOS prompt of your GRATEFUL MED subdirectory enter:  
ted srch
3. Add to the end of the second to last line (the line begins with "print"):  
skip 23

After editing, it will look something like this:  
print include ad,cm,mh,ps,la skip 23

(The two-letter abbreviations may differ according to how you answered the options at the bottom of the INPUT screen. Be sure a space precedes the word "skip").

4. Press the F7 key to save the changes and exit the program.
5. Press the Enter key to save the file with the name, SRCH.
6. From the GRATEFUL MED DOS prompt enter:  
search/a

This will run the same search AGAIN and begin downloading with reference #24.



*Question: I have some INPUT screens that I saved using Version 4. Can I transfer them to Version 5.0?*

**Answer:** Yes. Use the DOS COPY command to copy saved INPUT screen files (which all end in a ".MED" extension) into your new directory. For example, at the DOS prompt of your root directory enter:  
copy gm4\\*.med \gm5

(where GM4 is the name of the old GRATEFUL MED subdirectory and GM5 is the name of the new subdirectory)

**Note:** Be sure to copy any files you've created, e.g., search results files into your new Version 5.0 subdirectory before deleting the old subdirectory.



*Question: I've forgotten the password I used to access the GRATEFUL MED Bulletin Board. How can I get that?*

**Answer:** Call our Service Desk at 1-800-638-8480 and we can help you unravel the mystery.

**Note:** If you have forgotten your password for searching you must send a letter requesting this to: MMS/NLM, Bethesda, MD 20894. Please include the User ID code if you know it (it appears on your invoice).



*Question: I have limited space on my hard disk. Can you suggest any files I can delete from GRATEFUL MED that are not required for searching?*

Answer: You may delete a number of files used for AMANET access (if you don't plan to use this option) by using the following command at the DOS prompt in your GRATEFUL MED subdirectory:

```
del amanet.*
```

There are a number of smaller files that can be removed. To see a list of all the files created by hard disk installation and a notation whether or not each is required for bare bones functioning of GRATEFUL MED, download a file named, "GMSDIR" from the Files Section of the GRATEFUL MED Bulletin Board.



*Question: Can I use the 800 number for accessing the GRATEFUL MED Bulletin Board using the Macintosh?*

Answer: Not via GRATEFUL MED. You can, however, use another telecommunications program set for 8 data bits, one stop bit, and parity set for NONE to access the GRATEFUL MED Bulletin Board using 1-800-525-5756. The next Mac version will have this capability.

**\*\*\*REMINDER TO VERSION 5.0 RECIPIENTS\*\*\***

**Fill out and return the pink registration form that is enclosed in the "OPEN ME FIRST" envelope. The REGISTRATION NO. requested on the first line is a 9-digit number found on the mailing label of the shipping box. If you do not have this number, leave it blank. But be sure to return the card.**

# CROSSFILE Searching and Printing: The Basics

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 Toxicology Information Program, SIS

## Introduction

TOXNET's CROSSFILE feature permits simultaneous searching or printing from multiple files within select groups of TOXNET data banks. The first group of TOXNET files to offer this CROSSFILE feature consists of HSDB, RTECS, CCRIS, and IRIS. This group represents data banks that contain one record per chemical, identified by a unique Chemical Abstracts Service Registry Number (RN). The RN is used to transparently link records among the files of the CROSSFILE group. This allows a single search statement to retrieve information from one or more files within the group. Likewise, a single PRINT command can be used to display data from one or more files within the group. CROSSFILE searching may be invoked by explicitly entering a multiple file environment with the FILE command or simply by staying in one file and issuing search statements applicable to other files. This article deals with the basics of CROSSFILE searching and printing on the RN-linked group. Brief hypothetical examples have been created to illustrate the CROSSFILE feature.

## Connection to One File, Printing from Other Files

CROSSFILE printing allows you to perform a search in one file and print data about the retrieved chemicals from another file. Consider the following hypothetical search session, in which the user initially searches in HSDB but then requests a PRINT from RTECS:

```
[HSDB] SS 1 /cf?
USER:
(use) solvent and carcinogenic (iarc)
SS (1) PSTG (21)
```

```
[HSDB] SS 2/cf?
USER:
print 1:2 rtecs/cstu
```

```
-----
1          - HSDB
NAME       - Chemical AA
RN         - 11-11-1
DATE      - 900101
RLEN      - 100000
```

```
-----
2          - HSDB
NAME       - Chemical BB
RN         - 22-22-2
DATE      - 900101
RLEN      - 50000
```

```
2          - RTECS
NAME       - Chemical BB
RN         - 22-22-2
DATE      - 900101
CSTU      - Tumors found in Fischer rats.
-----
```

In the above example, the user first searches HSDB for records with "solvent" in the USE field and "carcinogenic" in the IARC field. Twenty-one HSDB records, representing 21 unique chemicals, are retrieved. By using the FILE/FIELD mnemonic combination for RTECS/CSTU, the PRINT command will display RTECS data from the CSTU field for the first two of these 21 chemicals, linked between files by their RNs. Note that "standard" data will always print out for the file to which you are directly connected. Thus, although the user did not explicitly ask for any HSDB data to print out, NAME, RN, DATE, and RLEN will display for each of the retrieved HSDB chemicals. Each HSDB record is paired with the corresponding RTECS record for the same chemical, i.e., linked by the same RN. The absence of RTECS data for Chemical AA above means that Chemical AA is not present in RTECS. A record for Chemical BB is in RTECS and the CSTU data displays. Remember, the user searched for the terms "solvent" and "carcinogenic" in HSDB. Therefore, there is no reason to expect the identical words to appear in RTECS for the field the user asks to print.

## Connection to Multiple Files, Searching Them

You may define a set of files you wish to connect to by using the FILE command or specifying the files during LOGON. For example, let's say that while logged onto HSDB you decide to perform searches on HSDB, RTECS, and IRIS simultaneously. The command "FILE HSDB RTECS IRIS" will connect you to these three files, as reflected in the search statement prompts shown below. Performing a broad search for all occurrences of the word "prostate" would take the form:

```
[HSDB] SS 2/cf?
USER:
file hsdb rtecs iris
[HSDB,RTECS,IRIS] SS 2/cf?
USER:
all prostate
```

The above example would search for all occurrences of the word "prostate" in HSDB or RTECS or IRIS in all data elements. Searching for the same word by specifying data fields, might look like this:

```
[HSDB,RTECS,IRIS] SS 3/cf?
USER:
(hsdb/htox) prostate or prostate (rtecs/gstu) or
prostate (iris/rdo)
```

Using the FILE/FIELD combination limits the above search for the word "prostate" in either the HTOX field of HSDB or the GSTU field of RTECS or the RDO field of IRIS. Since it so happens that each of the selected fields in the above example is unique to one file, one could have omitted the file names entirely, and entered the search as shown below:

```
[HSDB,RTECS,IRIS] SS 3/cf?
USER:
(htox) prostate or prostate (gstu) or prostate (rdo)
```

Readers should also note that, as search statements are entered within any of the RN-linked files, the search statement (SS) number continues to increase incrementally. In this article's first search statement, the user was connected to HSDB for SS 1. Upon transferring to the HSDB, RTECS, IRIS multiple file environment, the number was not reset to SS 1 but continued to increase incrementally. The DISPLAY command is particularly useful for reviewing search strategies when in the CROSSFILE mode because it records the files searched for each search statement.

#### Connection to One File, Searching Other Files

You may be connected to HSDB and search RTECS or you may be connected to CCRIS and search both IRIS and HSDB, or any such combination for TOXNET's four RN-linked data banks. The idea is that you are formally in FILE A, yet you are able to search any combination of FILES A, B, C, or D. It is good practice, although not always necessary, to specify both the files you want to search and the corresponding data element with a FILE/FIELD mnemonic combination. Let's say you are connected to HSDB and then decide to perform a search in CCRIS for carcinogenicity studies using hamsters. You could issue the FILE CCRIS command and then conduct your search directly in CCRIS or utilize the CROSSFILE capability as follows:

```
[HSDB] SS 4/cf?
USER:
(ccris/cstu) hamster
```

The above SS prompt shows you are directly connected to HSDB but by using the FILE/FIELD combination, you have specified that the search be conducted in CCRIS. Based on your results you might choose to further restrict your CCRIS search for Syrian hamsters and to look into IRIS as well, for carcinogenic risk assessments based upon studies involving these animals. Still connected to HSDB, you may now search both CCRIS and IRIS in the following manner:

```
[HSDB] SS 5/cf?
USER:
(ccris/cstu) syrian and hamster
SS (5) PSTG (91)
```

```
[HSDB] SS 6/cf
USER:
(iris/car) syrian and hamster
SS (6) PSTG (17)
```

```
[HSDB] SS 7/cf
USER:
5 or 6
```

Users are advised that when they perform a search using a FILE/FIELD mnemonic combination, they will probably want to use a FILE/FIELD designation in their PRINT command as well. For example, to see the retrieved hits in the CCRIS and IRIS files, you should type PRT CCRIS/HITS IRIS/HITS.

#### Understanding CROSSFILE Retrieval

In a CROSSFILE search, your retrieval (i.e., postings) represents the number, not of unique records, but of unique chemicals that meet your search criteria. For illustrative purposes, consider the following bogus search, performed in HSDB and RTECS:

```
[HSDB, RTECS] SS 8/cf?
USER:
(gstu) anorexia and human
SS (8) PSTG (5)
```

```
[HSDB, RTECS] SS 9/cf?
USER:
(htox) anorexia
SS (9) PSTG (9)
```

```
[HSDB, RTECS] SS 10/cf?
USER:
8 or 9
SS (10) PSTG (12)
```



[HSDB, RTECS] SS 11/cf?

USER:

prt 1:4 hits

The 12 postings retrieved from this search strategy refers to 12 unique chemicals, not to 12 discrete records.

Because you are connected to two files (HSDB and RTECS), these 12 postings may represent as many as 24 (12 x 2) records. Most likely, though, there will be fewer than 24 records since it is not likely that all retrieved HSDB records will have a matching RTECS record or vice-versa. A sample printout is shown in Figure 1.

-----		
1	- HSDB	[This chemical is a
NAME	- Chemical Q	hit because search
RN	- 66-66-6	criteria for HSDB
HTOX	- Anorexia is profound.	are met.]
	Nausea is typical.	
1	- RTECS	[Although Chemical Q
NAME	- Chemical Q	does exist in RTECS,
RN	- 66-66-6	the RTECS search
THERE ARE NO HITS FOR THIS RECORD		criteria are not
		met.]
-----		
2	- HSDB	[Chemical R is a hit
NAME	- Chemical R	in both HSDB and
RN	- 77-77-7	RTECS because search
HTOX	- Several cases of anorexia	criteria in both
	have been reported.	files are met.]
2	- RTECS	
NAME	- Chemical R	
RN	- 77-77-7	
GSTU	- EFFECT - Somnolence;	
	Anorexia; human.	
-----		
3	- HSDB	[Chemical S is a hit
NAME	- Chemical S	because search
RN	- 88-88-8	criteria for HSDB
HTOX	- Severe cases of vomiting	have been met.
	and anorexia have been	However, there is no
	reported.	corresponding record
		for this chemical in
		RTECS.]
-----		
4	- HSDB	[Although Chemical T
NAME	- Chemical T	does exist in HSDB,
RN	- 99-99-9	the HSDB search
THERE ARE NO HITS FOR THIS RECORD		criteria are not
		met.]
4	- RTECS	[This chemical is a
NAME	- Chemical T	hit because search
RN	- 99-99-9	criteria for RTECS
GSTU	- EFFECT - Behavioral	are met.]
	(Anorexia; human)	
-----		

Figure 1

### Discussion

In the above purely fictional but illustrative search and retrieval on human anorexia, the user is directly connected to HSDB and RTECS. SS 8 searches RTECS' GSTU field for the words "anorexia" and "human". Five postings are retrieved. SS 9 searches HSDB's HTOX, which contains only human data, for the word "anorexia". Nine postings are retrieved. The two search statements are then combined with a logical "OR" in SS 10. There are a total of 12 postings. These 12 postings represent 12 unique chemicals (but probably more than 12 unique records) that match either the criteria set forth in SS 8 or that set forth in SS 9.

### Conclusion

CROSSFILE is a powerful new addition to the TOXNET system. Although not conceptually difficult, it

will typically take some study and practice to master its mechanics. However, if you have the need to search for or print information on one or more chemicals across several files, CROSSFILE will be an invaluable timesaver and much more efficient than searching or printing from the multiple files separately.

This article is but a brief introduction to the capabilities of CROSSFILE. Other RN-linked files that join TOXNET in the future will become part of the RN-linked group and will also be CROSSFILE searchable and printable. Future articles will explore advanced features and the application of CROSSFILE to groups other than RN-linked files. With the debut of TRI88, for example, a TRI group (TRI87 and TRI88) is now also available for its own CROSSFILE searching. As future TRI files are added to TOXNET, they too will join the TRI group. Meanwhile, experiment with CROSSFILE. Its versatility will surprise you.

## Notes on the Rebuilding of the TOXLINE/TOXLINE65 Files

During the recent TOXLINE/TOXLINE65 file rebuilding at NLM, seven subfile producers provided complete subfile replacements. Except for the TOXBIB subfile, all records in these subfiles were reloaded at NLM with the same Entry Month (EM) tag of 9003 as a normal course of our regeneration which always assigns the current EM at the time of the rebuilding. Therefore, 9003 (EM) has an abnormally high count and most of these postings are not new records; they are replacements for older records, some edited, some not edited. This was the major consideration in the decision not to run the 9003 (EM) TOSLINE/TOXLIT SDI's.

Also during the rebuilding, the Entry Month tag on TOXBIB records was changed. When TOXBIB records are initially added to TOXLINE, they are not tagged with the same EM that appears on the corresponding

MEDLINE/SDILINE record. Rather, the TOXLINE EM will be one month earlier (for example, TOXBIB records entering TOXLINE with a 9001 (EM) tag represent MEDLINE/SDILINE records with a 9002 (EM) tag). During regeneration, however, the TOXBIB records assume the MEDLINE/SDILINE EM (for example, the TOXBIB records originally tagged 9001 (EM) will be tagged 9002 (EM) at regeneration).

This means that the 9003 (EM) is a mix of mostly old and very few new records, with changes in the Entry Month field as discussed above. NIOSHTIC, ETIC, and EMIC are the only subfiles that would have any new records. Therefore NLM elected not to process an automatic run for 9003 (EM) and has alerted the Auto SDI user community to this situation. The 9003 (EM) counts for each subfile are as shown below in Figure 1.

SUBFILE/ PROVIDER	TOXLINE	TOXLINE65
NIOSH	43,323	26,502
ETIC	18,291	28,080
EMIC	30,168	37,804
CRISP	12,054	
TSCATS	11,755	
EPIDEM	9,082	
TOXBIB	3,565*	
* were previously 9002 (EM)		
TOTAL:	128,238	92,386
Grand total for both databases is 220,624 records with the 9003 (EM) tag.		

Figure 1

## Serials Update

### INDEXED TITLES UPDATE, JUNE 1990

The following titles cited in MEDLINE, HEALTH, and POPLINE have recently been selected for indexing, undergone a title change, or ceased publication. This list is not cumulative; the information provided is only for titles whose status has changed since the last UPDATE.

More detailed information may be found in SERLINE. For further information, please contact MMS or Ms. Esther Baldinger, (301) 496-1276, Technical Services Division, NLM.

### TITLES SELECTED FOR INDEXING, MAY 1990

INI NURSING DIAGNOSIS  
NURS DIAGN  
1,JAN/MAR 1990--  
J.B.LIPPINCOTT  
PHILADELPHIA PA  
OFFICIAL JOURNAL OF THE NORTH AMERICAN  
NURSING DIAGNOSIS ASSOCIATION.  
INDEXING BEGAN WITH VIN1,JAN-MAR 1990.  
ON ORDER  
SR0068375

UNITED STATES  
1046-7459  
JC: AS6

IDL TODAYS FDA  
TODAYS FDA  
IN1,SEP 1989--  
FLORIDA DENTAL ASSOCIATION  
TAMPA FL  
CONTINUES: DENTAL TIMES DISPATCH, WHICH IS  
NOT IN THE NLM COLLECTION. OFFICIAL  
MONTHLY JOURNAL OF THE FLORIDA DENTAL  
ASSOCIATION. CONSIST OF FOUR SECTIONS:  
TODAYS NEWS. SECTION A, TODAY'S COMMENTARY.  
SECTION B, TODAY'S SCIENTIFIC. SECTION C,  
AND: TODAY'S FEATURES. SECTION D. FORMED  
BY THE MERGER OF: DENTAL TIMES DISPATCH  
AND: FLORIDA DENTAL JOURNAL.  
INDEXING BEGAN WITH VIN3,NOV 1989.  
ON ORDER  
SR0066987  
FLORIDA DENTAL ASSOCIATION,3021 SWANN  
AVENUE,TAMPA,FL 33609,800-877-7597,FAX-81  
3-876-3225

### TITLE CHANGES, MAY 1990

IM ZEITSCHRIFT FUR UNFALLCHIRURGIE UND  
VERSICHERUNGSMEDIZIN. REVUE DE  
TRAUMATOLOGIE ET D ASSICUROLOGIE  
Z UNFALLCHIR VERSICHERUNGSMED  
83N1,1990--  
HANS HUBER  
BERN  
CONTINUES: ZEITSCHRIFT FUR  
UNFALLCHIRURGIE, VERSICHERUNGSMEDIZIN UND  
BERUFSKRANKHEITEN. CARRIES ISSN OF FORMER  
TITLE.  
IN PROCESS  
SR0068479

SWITZERLAND  
JC: ATE

INI AMERICAN JOURNAL OF HOSPICE AND PALLIATIVE  
CARE  
AM J HOSP PALLIAT CARE  
7N2,MAR-APR 1990--  
PRIME NATIONAL PUBLISHING  
WESTON MA  
CONTINUES: AMERICAN JOURNAL OF HOSPICE  
CARE.  
W1 AM454KG  
SR0068461

UNITED STATES  
JC: ATD

CHANGE OF ADDRESS FORM  
(U.S. users only)

User ID Code \_\_\_\_\_ (Must be included)

Check here \_\_\_\_\_ if you purchased GRATEFUL MED.  
The new address information will be forwarded to NTIS.

New Billing Address: (please print or type)

Name: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_

New NLM Technical Bulletin/GRATEFUL MED Address:

Name: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_

Note: This form DOES NOT change the address of Automatic SDIs  
or your stored address for offline prints. Call the MMS  
Service Desk for information on changing these addresses.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

Please affix current address label here:

Please mail this form to:

MEDLARS Management Section  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894





**\*\*\*REMINDER\*\*\***

**This is the last monthly issue of the  
*Technical Bulletin*. As previously announced,  
it will now be issued on alternating months with  
the new publication *Gratefully Yours*.  
Look for the July/August issue of the  
*Technical Bulletin* at the end of August.**



# Technical Bulletin

## Use of Copyright Data in Cataloging

Sally Sinn

Technical Services Division, NLM

Based on the provisions of a recent Library of Congress Rule Interpretation, catalogers at the National Library of Medicine are no longer using the copyright date in addition to the publication date in the publication/distribution area for the descriptive cataloging of printed books and serials, when both dates appear together in the publication.

It had been long-standing NLM cataloging policy to give both copyright and publication dates in the description of printed books and serials if these dates differed. The addition of copyright date to the publication date is permitted as a rule option in AACR2 (Anglo-American Cataloguing Rules, 2nd ed., 1978) and in AACR2R, the 1988 revision of AACR2. Both the National Library of Medicine and the Library of Congress (LC) followed this option until the issuance of a new LC Rule Interpretation (LCRI) for AACR2 Rule 1.4F5 in December 1989.

Continued on page 5

### In This Issue:

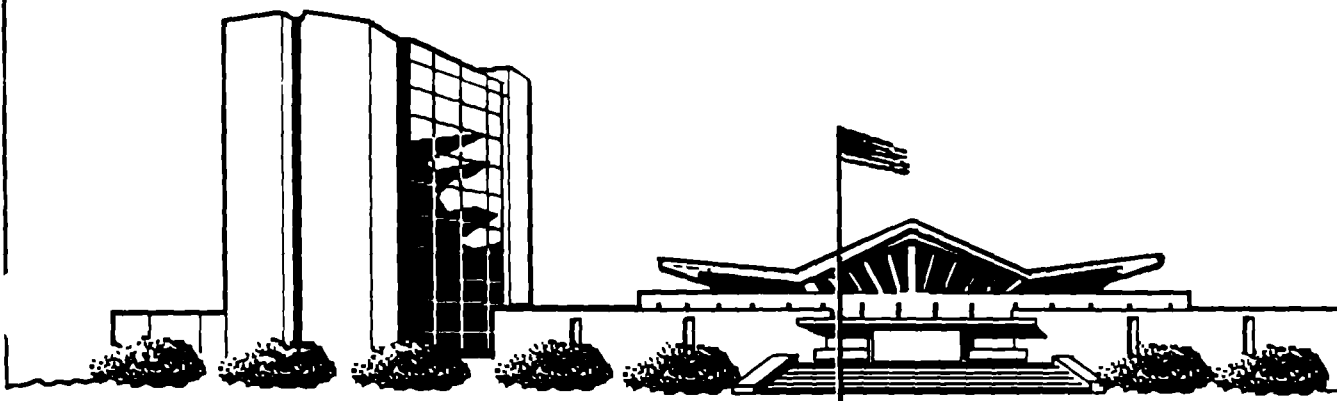
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**NLM TECHNICAL BULLETIN MAY 90**

MEDLARS DATABASE	TOTAL RECORDS	DATES COVERED	DATE LAST UPDATED	LATEST UPDATE TAG
Ⓢ ELHILL COMPUTER				
AIDSDRUGS	83		03 JUN 90	
AIDSLINE**™	33,202	JAN 80-AUG 90	05 JUN 90	9008(EM)
AIDSTRIALS	244		02 JUN 90	
AVLINE Ⓢ	20,610	THROUGH 1990	31 MAY 90	
BIOETHICS Ⓢ	29,652	JAN 73-APR 90	13 APR 90	9004(EM)
CANCERLIT Ⓢ	736,192	JAN 63-JUN 90	02 JUN 90	9006(EM)
CATLINE Ⓢ	663,060	THROUGH 1990	31 MAY 90	
CHEMID	182,003		27 FEB 90	
CHEMLINE Ⓢ	907,805		10 FEB 89	9002(EM)
CLINPROT Ⓢ	7,747		19 MAY 90	9005(EM)
DENTALPROJ	784		28 FEB 90	
DIRLINE Ⓢ	17,046		28 FEB 90	
DOCUSER Ⓢ	11,925		02 JUN 90	
HEALTH	505,289	JAN 75-JUL 90	02 JUN 90	9007(EM)
HISTLINE Ⓢ	93,969		02 JUN 90	9005(EM)
MEDLINE* Ⓢ	770,511	JAN 88-AUG 90	02 JUN 90	9008(EM)
MED86	651,846	JAN 86-DEC 87	26 MAY 90	
MED83	890,574	JAN 83-DEC 85	17 FEB 90	
MED80	803,397	JAN 80-DEC 82	26 MAY 90	
MED77	775,781	JAN 77-DEC 79	09 DEC 89	
MED72	1,175,567	JAN 72-DEC 76	07 APR 90	
MED66	1,310,458	JAN 66-DEC 71	02 JUN 90	
MESH VOC Ⓢ	72,453	1990	02 JUN 90	
NAME AUTH Ⓢ	346,529		26 MAY 90	
PDQ Ⓢ		THRU JUN 90	01 JUN 90	
POPLINE™	174,118	1970-MAY 90	05 MAY 90	9005(EM)
SDILINE Ⓢ	28,226	JUL 90	26 MAY 90	9007(EM)
SERLINE Ⓢ	74,696	1990	05 JUN 90	
TOXLINE Ⓢ	819,787	1981-1990	17 MAY 90	9005(EM)
TOXLINE65	707,374	PRE 1965-1980	31 MAR 90	
TOXLIT™	829,797	1981-1990	17 MAY 90	9005(EM)
TOXLIT65	586,405	1965-1980	01 SEP 87	

\*N.B. FILE IS UPDATED WEEKLY; THIS IS PART 1 OF 5.

\*\*N.B. FILE IS UPDATED WEEKLY; THIS IS PART 1 OF 6.

TOXNET COMPUTER

CCRIS	2,190		13 MAR 90
DART™	2,085		23 MAY 90
DBIR™	1,390		14 MAY 90
EMICBACK	67,975		02 JUN 89
ETICBACK	46,374		30 JAN 89
HSDB Ⓢ	4,209		29 MAY 90
IRIS	400		07 MAY 90
RTECS Ⓢ	104,509		02 MAY 90
TRI87	76,737		20 NOV 89
TRI88	80,228		29 MAY 90

Head, MMS: Carolyn B. Tilley  
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 National Library of Medicine  
 Bldg., 38A, Rm. 4N421  
 Bethesda, Maryland 20894

The NLM Technical Bulletin is an administrative document sent to formal members of NLM's MEDLARS Online Network.

**CONTENTS NOT COPYRIGHTED FREELY REPRODUCIBLE**

## Technical Notes

Whenever applicable, the heading of each Technical Note includes a reference to the section of the Online Services Reference Manual, 1988 that is considered most relevant to the item being discussed, e.g., (Manual 4.7.2). Users should keep in mind that the item may pertain to other sections as well.

### INDEPENDENCE DAY HOLIDAY SCHEDULE

The following is the MEDLARS computer schedule for Independence Day, Wednesday, July 4.

System	Rates/Status
ELHILL	non-prime/ non-guaranteed
TOXNET	non-prime/ guaranteed
DOCLINE	not available
	Service Desks
MMS	not staffed
DOCLINE	not staffed

### GRATEFUL MED VERSION 5.0

Shipment of new orders and updates of GRATEFUL MED Version 5.0 (IBM) has been completed. Call NTIS at 703-487-4660 if you have not received your update copy.

There is an error on the GRATEFUL MED Version 5.0 packing list. The packing list erroneously says that there are two How To 3.5" disks. It should read one 3.5" How To disk is enclosed.

### MEETING ABSTRACTS ADDED TO AIDSLINE

As announced in the online news, on June 1, 1990, 1441 of the meeting abstracts from the Fifth International Conference on AIDS were added to AIDSLINE. These meeting abstracts have been excluded from the AIDSLINE Automatic SDIs that you are receiving for the 9007 Entry Month (EM). Since so many of you have AIDSLINE SDIs that include the complete monthly update, we excluded these abstracts because of the large number and associated costs.

If you would like to run an AIDSLINE SDI strategy against these abstracts, you can do it online in AIDSLINE by entering the exact name of your stored strategy followed by (sn). You would then "AND" the results with the Secondary Source Identifier (SI) for these meeting abstracts "ICA5 (SI)". See example below.

YOU ARE NOW CONNECTED TO THE AIDSLINE (1980 FORWARD) FILE.

```
SS 1 /C?
USER:
d007 women (sn)
PROG:
SS (1) PSTG (264)
```

```
SS 2 /C?
USER:
1 and ica5 (si)
PROG:
SS (2) PSTG (57)
```

You can then print the results either online or offline.

NLM expects to add the remainder of these 5000+ meeting abstracts to AIDSLINE with future regularly scheduled updates. We expect that this project will be completed with 9008 (EM), but it may continue through 9009 (EM). You may want to run the strategy shown above and modify it by "ANDing" in the appropriate Entry Month (EM) in the upcoming months as the rest of these meeting abstracts are added to AIDSLINE.

**NEW TELENET HOST ADDRESS: C NLM**

The three letters NLM may be used now as a host address for Telenet to connect to the NLM mainframe computer with the ELHILL databases (MEDLINE, CATLINE, TOXLINE, etc.) and PDQ. The Telenet host address, c 301 20, will continue to be recognized. Example (user responses are in bold type):

@  
c nlm (cr)

NLM CONNECTED  
/login

PLEASE ENTER USERID/PASSWORD OR LOGON  
SSSSSSSSSSSSSSSSSSSS

**POSSIBLE DATA LOSS**

Beginning in January, users began calling the MEDLARS Service desk reporting the receipt of a POSSIBLE DATA LOSS message while using Telenet to search MEDLARS databases. NLM and Telenet investigated the problem for some time including the installation of a scope on various Telenet lines. Finally, a Telenet board was identified as the culprit, replaced on April 17, and the problem has virtually disappeared. We wish to thank all the searchers who called in and spent time with Service Desk personnel providing information when they received the data loss messages. In the future, a POSSIBLE DATA LOSS message may occur when data goes astray and the Telenet network alerts you; this should be a rare occurrence. You may then want to repeat a command or re-print a reference. However, searchers should no longer see this message with the frequency recently experienced. We appreciate your patience and hope that similar problems will not take as long to resolve.

**NLM TECHNICAL BULLETIN SCHEDULE CHANGE**

The *Technical Bulletin* will be published bimonthly

beginning in July 1990. As previously announced, it will be issued on alternating months with the new publication, *Gratefully Yours*. *Gratefully Yours* will automatically be sent to all MEDLARS code-holders. *Gratefully Yours* is geared toward health professionals who do their own searching and will be the major publication for GRATEFUL MED users.

The *Technical Bulletin* will continue to be the major vehicle of communication for experienced ELHILL searchers and tape licensees. All code-holders will continue to receive the *Technical Bulletin* through 1990. In the September/October *Technical Bulletin* issue, a postcard mailer will be included for users to indicate if they wish to continue receiving the *Technical Bulletin*. We expect to be able to provide both publications at no charge to the users who wish to receive both.

**TRI88 AVAILABLE ON TOXNET**

A new database, TRI88 (The 1988 Toxic Chemical Release Inventory) became available on the TOXNET system on May 29, 1990. TRI88 contains data on toxic chemicals released to the environment or transferred to waste sites, as submitted to the EPA for the 1988 reporting year. The formerly named TRI file has been renamed TRI87 to reflect that its data is actually for the 1987 reporting year. TRI87 and TRI88 will operate as separate, parallel databases with identical unit record structures.

Crossfile searching/printing and numerical calculations (CALC command) are available for the two files in the direct search mode and will become available for menu searching in the near future. For more detailed information about TRI88 and the new TRI CROSSFILE features, consult the appropriate online EXPLAINS by typing EXPLAIN TRI88 or EXPLAIN CROSSFILE TRI or EXPLAIN CROSSFILE CALC. Other system enhancements for the TRI series of files are currently under development, e.g., online sorting, downloading in ASCII format, and advanced search menus. These new features should be operational within the next 4-6 months.

Use of Copyright Data  
Continued from page 1

The LCRI for Rule 1.4F5 instructs catalogers to apply the optional addition of copyright date to materials other than books and printed serials. Changes in copyright law introduced in the 1978 revision resulted in the use of copyright dates that provide protection to the copyright

holder but which may not reflect the currency of the contents of printed materials. For non-print materials, the copyright date does have a relationship to the currency of the production, therefore, the option for Rule 1.4F5 will still be applied by NLM and LC in cataloging non-print materials.

*Monthly Search Hint*

## **SORTing and/or COMBining at SS 25**

Joyce A. Conner  
MEDLARS Management Section, NLM

If any of the commands **SPRINT SORT**, **SPRINT COMB**, **SPRINT SORT COMB**, or **SPRINT PROMPT** are issued after you have used 25 search statements, the request appears to be accepted. However, retrieval will not be sorted or combined as requested; retrieval will be printed unsorted, one search statement at a time. If the **SPRINT PROMPT** command is issued, you will not be prompted to sort or combine. A description of online sorting is in the October 1989 and February 1990 issues of the *Technical Bulletin*.

This happens because there are a maximum of 25 search statements which can be used on the NLM ELHILL system before the workspace allotted to a user is filled

up. The ELHILL system actually uses a search statement to combine and/or sort the retrieval. If you have used the 25 search statements allotted to you when you issue any of these commands, the ELHILL system will not have a search statement available to process (sort and/or combine) the output. To "erase" some of the search statements to make more workspace available, the commands **ERASEBACK** (Manual 4.9.6) or **KEEP** (Manual 4.9.21) should be used. Use the **KEEP** command before issuing the **SPRINT** command to free up some search statements, in case you plan to perform further searches. Figure 1 is a sample search that illustrates **ERASEBACK**. Figure 2 illustrates the **KEEP** command in this situation.

```

SS 23 /C?
USER:
parakeets
PROG:
SS (23) PSTG (22)

SS 24 /C?
USER:
canaries
PROG:
SS (24) PSTG (11)

SS 25 /C?
USER:
corn
PROG:
SS (25) PSTG (429)
SF,C
The message SF,C (Search Series Full)
is received to indicate our workspace
is full.

USER:
sprint 23, 24 sort comb
PROG:
YOUR REQUEST WILL BE PROCESSED UNSORTED, ONE SEARCH STATEMENT AT
A TIME.
We want to sort and combine retrieval
from search statements 23 and 24.

READY TO PRINT FROM SEARCH 23, CONTAINING 22 ITEM(S) FROM MEDLINE.

ENTER SPECIFICATIONS FOR PRINTING (E.G., BR, SD, FU, DL), OR 'SAME' (DO
NOT USE THE WORDS 'PRINT' OR 'PRT'):

USER:
sprint cancel
PROG:
SUPERPRINT COMMAND HAS BEEN CANCELLED.
SF,C
We cancel our request as it cannot be
sorted and combined.

USER:
erasetback
PROG:
The command ERASEBACK deletes
search statement 25, thus
allowing room to sort and combine.

SS 25 /C?
USER:
sprint 23, 24 sort comb
PROG:
SOME DUPLICATE ITEMS HAVE BEEN ELIMINATED.

COMBINED SEARCHES WITH 32 ITEM(S) FROM MEDLINE ARE NOW READY FOR
SORTING.

ENTER SORT SPECIFICATIONS, 'SAME', OR 'NONE':

USER:
jnl
PROG:
ENTER SPECIFICATIONS FOR PRINTING (E.G., BR, SD, FU, DL), OR 'SAME' (DO
NOT USE THE WORDS 'PRINT' OR 'PRT'):

USER:
ar
PROG:

```

Figure 1 - ERASEBACK

```

SS 23 /C?
USER:
parakeets
PROG:
SS (23) PSTG (22)

SS 24 /C?
USER:
canaries
PROG:
SS (24) PSTG (11)

SS 25 /C?
USER:
corn
PROG:
SS (25) PSTG (429)
SF, C
The message SF,C (Search Series Full)
is received to indicate our workspace
is full.

USER:
sprint 23, 24 sort comb
We want to sort and combine our
retrieval from search statements 23
and 24.
PROG:
YOUR REQUEST WILL BE PROCESSED UNSORTED, ONE SEARCH STATEMENT AT
A TIME.

READY TO PRINT FROM SEARCH 23, CONTAINING 22 ITEM(S) FROM MEDLINE.

ENTER SPECIFICATIONS FOR PRINTING (E.G., BR, SD, FU, DL), OR 'SAME' (DO
NOT USE THE WORDS 'PRINT' OR 'PRT'):

USER:
sprint cancel
We cancel our request as it cannot be
sorted and combined.
PROG:
SUPERPRINT COMMAND HAS BEEN CANCELLED.
SF,C

USER:
keep 23, 24
The KEEP command is used to save search
statements 23 and 24. All other search
statements are lost. Notice we are placed
at SS 3.
PROG:

SS 3 /C?
USER:
display
The display command shows that SS 24 and
SS 25 are now SS 1 and SS 2 of a new
series.
PROG:

SEARCH FORMULATION BEGINNING AT SS 1 :

(PARAKEETS ) -- 22 ITEMS FOUND IN MEDLINE

SEARCH FORMULATION BEGINNING AT SS 2 :
(CANARIES ) -- 11 ITEMS FOUND IN MEDLINE

NO SUBHEADINGS APPLIED TO ANY SEARCH STATEMENT.

SS 3 /C?
USER:
sprint 1, 2 sort comb
PROG:
SOME DUPLICATE ITEMS HAVE BEEN ELIMINATED.

COMBINED SEARCHES WITH 32 ITEM(S) FROM MEDLINE ARE NOW READY FOR
SORTING.

ENTER SORT SPECIFICATIONS, 'SAME', OR 'NONE':

USER:
jn1
PROG:
ENTER SPECIFICATIONS FOR PRINTING (E.G., BR, SD, FU, DL), OR 'SAME' (DO
NOT USE THE WORDS 'PRINT' OR 'PRT'):

USER:
ar
PROG:

```

Figure 2 - KEEP



# ELHILL LEARN:<sup>TM</sup>

## Microcomputer-Based Training for ELHILL

Miriam L. Perkins  
Melvin L. Spann, Ph.D.  
Specialized Information Services, NLM

The National Library of Medicine is pleased to announce ELHILL LEARN, a microcomputer-based training program for the ELHILL search and retrieval software. It is intended as a precursor to the CHEMLEARN,<sup>TM</sup> TOXLEARN,<sup>TM</sup> and MEDTUTOR<sup>TM</sup> microcomputer-based training programs. While it is designed primarily for search intermediaries unfamiliar with the ELHILL software, its menu-driven structure makes it easy to use as a quick reference tool to reinforce or recall previously learned search techniques. It may be used in place of formal training, as a precursor to or a refresher following formal training, or for review of a particular concept.

ELHILL LEARN is organized into six chapters. The introduction is presented in Chapter One. Chapter Two covers logon/logoff procedures; Chapter Three, search statements; Chapter Four, commands; Chapter Five, system messages; and Chapter Six, special procedures. Optional summaries are available for each section in ELHILL LEARN. Interactions with ELHILL LEARN simulate interactions with ELHILL.

ELHILL LEARN contains approximately two hours of interactive instruction. It is recommended that new users proceed sequentially through the program. ELHILL LEARN keeps a record of the sections completed for the twelve most recent users. A hierarchical listing of the sections in ELHILL LEARN is given in the next column.

- Introduction
- Logon/Logoff Procedures
  - . Telenet
  - . Tymnet
  - . InfoNet
  - . CompuServe.
  - . Direct Dial
- Search Statements
  - . Search Terms
  - . Qualifiers
  - . Logical Operators
  - . Truncation
- Commands
  - . Neighbor Commands
  - . Print Commands/Options
  - . Profile Commands
- System Messages
  - . General Search Messages
  - . Multi-Meaning Messages
  - . Neighbor Message
  - . Overflow Messages
- Special Procedures
  - . Save/SaveSearch
  - . Stringsearch

### Instructional Design

Perhaps the most important design aspect of ELHILL LEARN is its simulations. INSTRUCTION windows provide users with directions for interacting with ELHILL LEARN (Figure 1) allowing them to simulate actual online searching. They are instructed to enter a letter, word, or phrase after the USER: prompt followed by the Enter Key. ELHILL LEARN's responses are displayed following the PROG: prompt as are ELHILL's. Users may choose to have ELHILL LEARN enter the desired input automatically by pressing the appropriate function key.

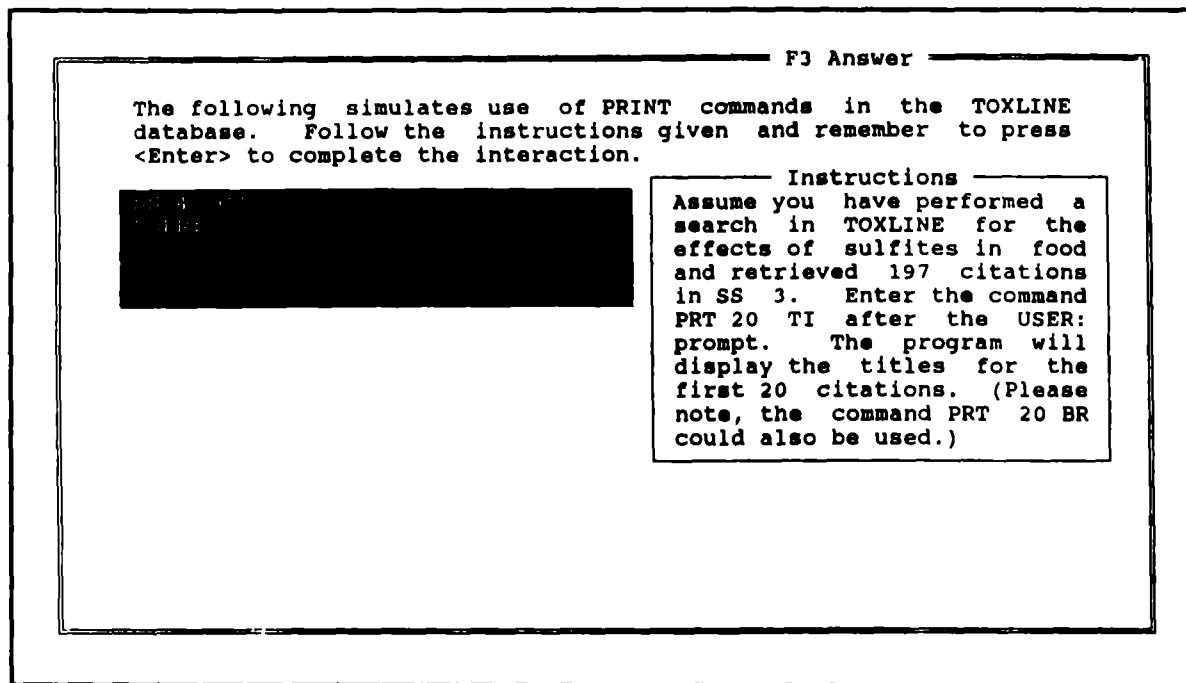


Figure 1 - INSTRUCTION Window

Optional information, including optional SUMMARIES (Figure 2), is provided throughout ELHILL LEARN. They are accessible from any point in the section and

provide an excellent means of review. Additionally, the user may print all of the SUMMARIES for the entire chapter.

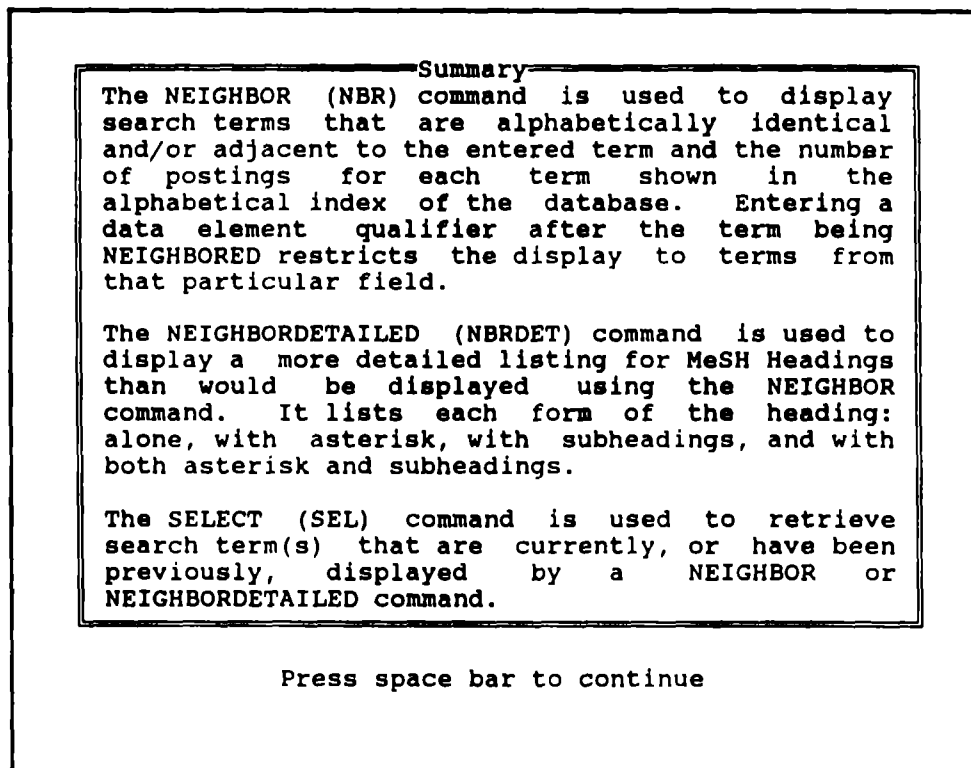
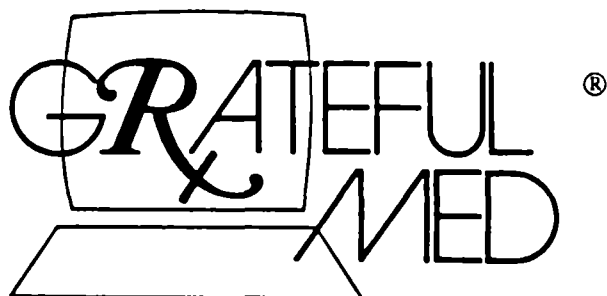


Figure 2 - Optional SUMMARY

Continued on p. 14



VERSION 5.0

First, some reminders about Version 5.0:

You should install the new version in a brand new directory (i.e., do NOT install over Version 4.0)

You can only perform SETUP functions (e.g., change telephone numbers) from outside the program. Therefore, if you are already in the program, you must exit to the DOS prompt of your GMED subdirectory and type SETUP.

You can stop your search from downloading only with the Esc key or, when GRATEFUL MED beeps, answer "N" at the "DO YOU WANT MORE (y/N)?" prompt.

Second, we want to show you how you can use some new features of the PC Version 5.0 to review on a monthly basis the citations from a list of journals you select.

Scenario: There are two journals that you like to browse, but your library does not collect them.

What you'll do: Create a search that retrieves everything from these two journals and save the strategy so that you can run it once a month in a database called SDILINE. SDILINE is updated twelve times a year with the monthly updates to MEDLINE and contains only one month's citations.

Before you start your search, you need to get the title abbreviations for your journals. If you can't find them on references you have already retrieved on MEDLINE there are a number of ways to do this. There is a list of abbreviations and codes for some of the major clinical journals on the help screen for the *JOURNAL ABBREV* line of the INPUT screen (press the Home key). If a journal you are interested in is not on this list you can call the MMS Service desk (1-800-638-8480), or leave us a message on the GRATEFUL MED Bulletin Board, or look it up in a publication called the List of Serials

Indexed for Online Users which you can find in most medical libraries (check with the reference librarian).

Note: When searching for journals it is necessary to use either the journal title abbreviation or the journal title code. In this example we will use the abbreviations.

Here's how:

1. Edit the file that comes with your GRATEFUL MED called "JOURNALS." JOURNALS comes with the title abbreviations for some pre-selected journals. By editing this file you can use it to restrict your search to a group of journals that you specify.

From the DOS prompt within your GRATEFUL MED subdirectory:

C:\GMED>ted journals

(This command allows you to use the text editor "TED" that comes with Version 5.0 to edit "JOURNALS.") See screen below.

```

AJR Am J Roentgenol (ta)
Am Fam Physician (ta)
Am J Med (ta)
Ann Intern Med (ta)
Arch Intern Med (ta)
BMJ (ta)
Br Med J Clin Res (ta)
Chest (ta)
Gastroenterology (ta)
JAMA (ta)
J Fam Pract (ta)
Med Clin North Am (ta)
Medicine (Baltimore) (ta)
N Engl J Med (ta)
Postgrad Med (ta)
West J Med (ta)
    
```

F10 Home F2 Back F3 F4 F5 F6 F7 F8 F9 F10 F11 F12

Use the function keys, where needed, to edit JOURNALS so that it contains the abbreviations for the titles you want.

Tips:

- See the TED.DOC file in your GMED subdirectory for more information about TED.
- Capital letters are not necessary.
- Follow the format used in "JOURNALS."
- Each title abbreviation must be followed by "(ta)."
- If you use title codes instead each must be followed by "jc"
- Use the F9 key to delete the lines you won't be needing.
- It's best not to include too many titles, unless you are prepared to look at hundreds of references
- After you've finished editing, use the F7 key to save your changes and exit TED.

2. Enter GRATEFUL MED and select SDILINE from the list of Other Databases.

3. Create your search which will be very easy since you simply type "journals" on the *JOURNAL ABBREV* line of the SDILINE input screen.

At the bottom of the screen you will be prompted with:

OK TO GO ON TO SEARCH (Y/n/v/s/\*)? s  
Enter s for "save."

Next, you will be prompted with:

Enter the name of saved search [ ]  
Type in an appropriate name (up to 8 characters), for example, "update" and hit Enter.

FILE	SAVED ON
LASTSRCH.MED	Mon Jun 04 16:00:29 1990
AM.MED	Thu May 10 17:44:00 1990
APJ.MED.MED	Thu May 10 14:48:17 1990
HEP.MED	Wed Apr 25 14:51:04 1990
NEURON.MED	Tue May 15 13:57:14 1990
PAIN.MED	Mon Apr 23 11:15:17 1990
Update.MED	Mon Jun 04 16:00:29 1990

You will then go to the SDILINE input screen for this search and should hit the Enter key to get to the bottom of the screen so you can run the search.

**Tips:**

Answer "OK TO GO ON TO SEARCH?" with "\*" so that you don't retrieve the MeSH Headings. Don't download abstracts since you're really just browsing.

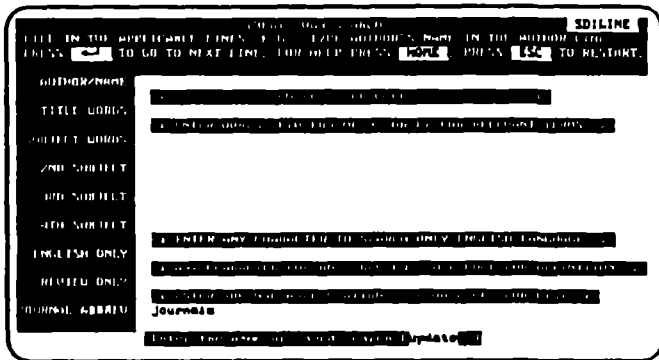
If you bring up the program with "SEARCH/N" (rather than "SEARCH") all your retrieval will be downloaded for that search session without prompting you with "DO YOU WANT MORE y/N)?"

Run your updates once a month. The schedule of SDILINE updates for 1990 can be found in the October 1989 *Technical Bulletin* and also in Bulletin #25 on the GRATEFUL MED Bulletin Board.

**Q.** How can I keep from getting references to animal studies? Can I use "not animals" in my search?

**A.** First, a brief explanation: Every record for an article about a human study gets the MeSH Heading, HUMAN. Every record for an article about an animal study gets the MeSH Heading, ANIMAL. Therefore, if you want to restrict your retrieval to studies in humans, simply select HUMAN from the MeSH display.

The problem with using a "not" statement (which is possible: enter /NOT ANIMAL on a SUBJECT WORDS line) is many articles describe the study in both humans and animals. Therefore, both headings, HUMAN and ANIMAL, will be added to the record, and if you "not" out the ANIMAL studies you will



You will then be re-prompted with:

OK TO GO ON TO SEARCH (Y/n/v/s/\*)?

If you want to run a search for the current month enter "\*" (the asterisk).

The "\*" is the response of choice for this type of search where you are browsing references because it will download the citations without the MeSH terms. This will also make the search faster and cheaper.

If you do not want to search the current month, enter "n" and you will be able to then hit Esc to go to something else.

...Time passes.....one month later....

From the ACTION screen, select "Use - Retrieve User Search File".

From the list of saved file names select your saved search name, which will have the extension, ".MED" on it. For example, "UPDATE.MED."

eliminate those records that have both HUMAN and ANIMAL.

A general recommendation for searching is: Search positively for what you want rather than negatively for what you don't want.

**\*\*\*REMINDER\*\*\***

**June will be the last month in which the GRATEFUL MED column will appear in the *Technical Bulletin*. Starting in July look for this feature exclusively in the new bimonthly publication *Gratefully Yours*.**

**For more information see the article on page 91 of the February *Technical Bulletin* and the Technical Note on page 3 of this issue.**

ELHILL LEARN

Continued from page 10

ESCAPE SEQUENCES (Figure 3) incorporated at strategic places in the program enable users to find

explanations quickly for network and system messages as well as look up definitions for ELHILL commands

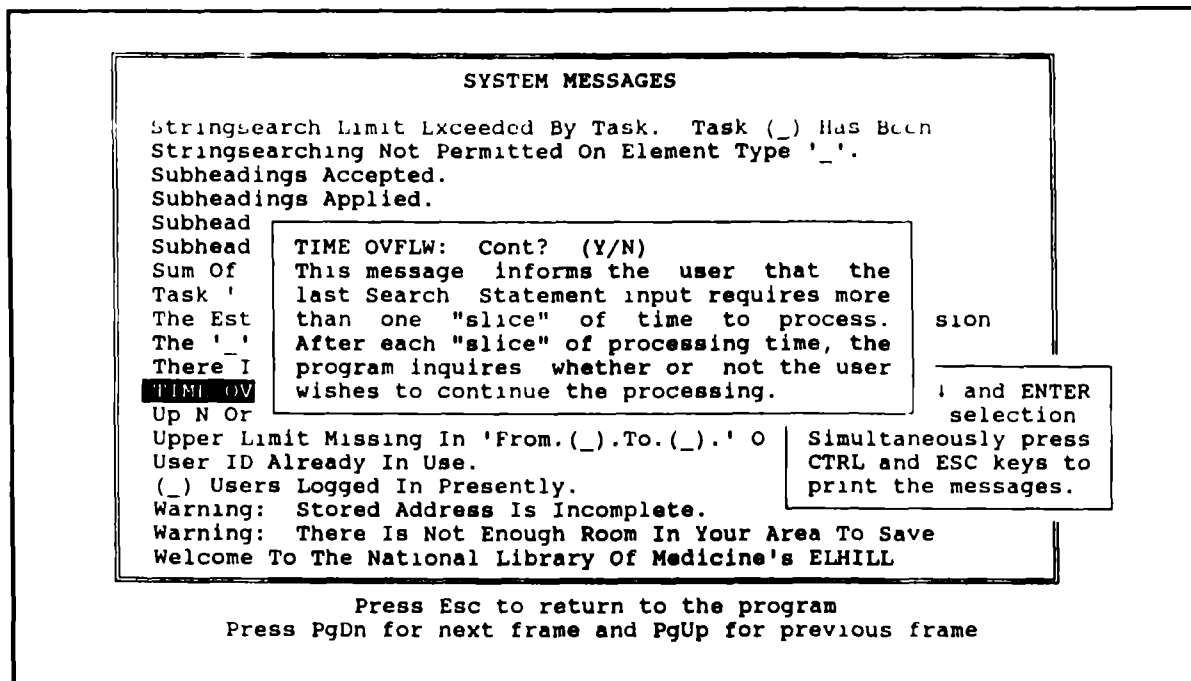


Figure 3 - ESCAPE SEQUENCE Frame

A MAP (Figure 4) displays a hierarchical listing of each of the sections in the program. It serves as both an

index and an overall menu. Both the MAP and the ESCAPE SEQUENCES are printable.

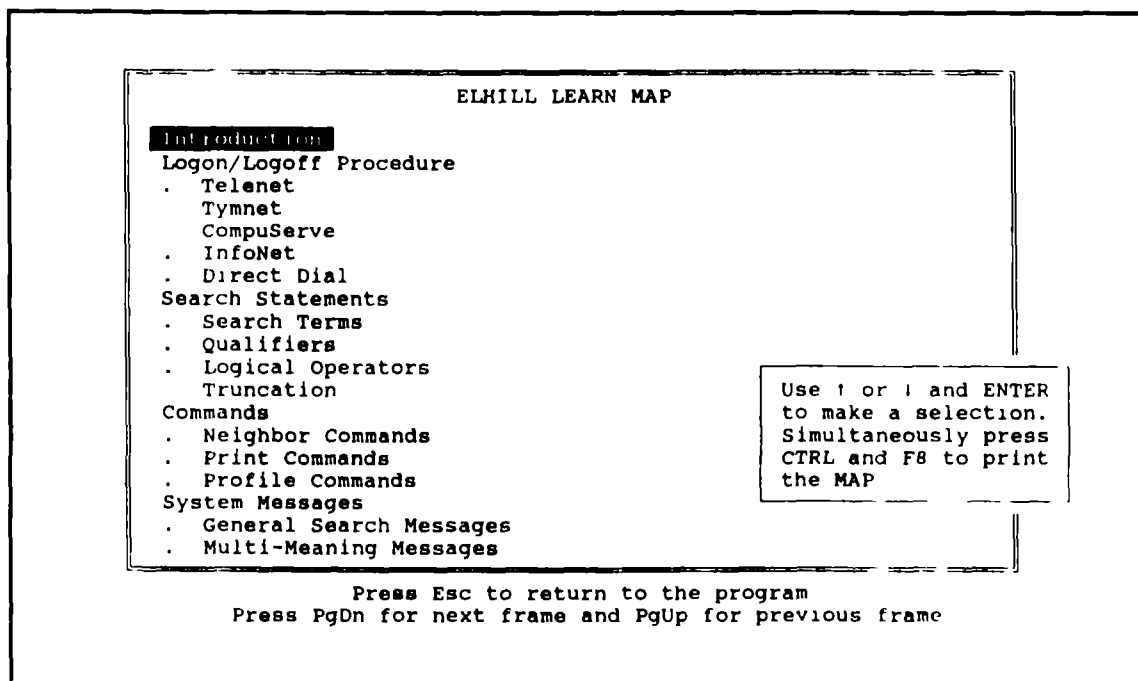


Figure 4 - MAP Frame

Menus and submenus are used to access chapters and topics within chapters. A tracking function monitors users' progress through the program. As each section is completed, its corresponding menu and MAP entries are highlighted. Records are maintained on the progress of the twelve most recent users. This information is used in subsequent sessions to allow these users the option of returning to the point in the program from which they exited and to indicate the topics they had completed previously.

Movement among menus, access to the MAP, and other optional information, including SUMMARIES, as well as paging forward and backward through consecutive displays, automatically displaying user input, and exiting to DOS are accomplished by pressing function keys. A window detailing each function key's operation may be displayed at any point in ELHILL LEARN at the press of a function key (Figure 5). ELHILL LEARN allows users to access quickly the particular portions of the program related to their individual search requirements.

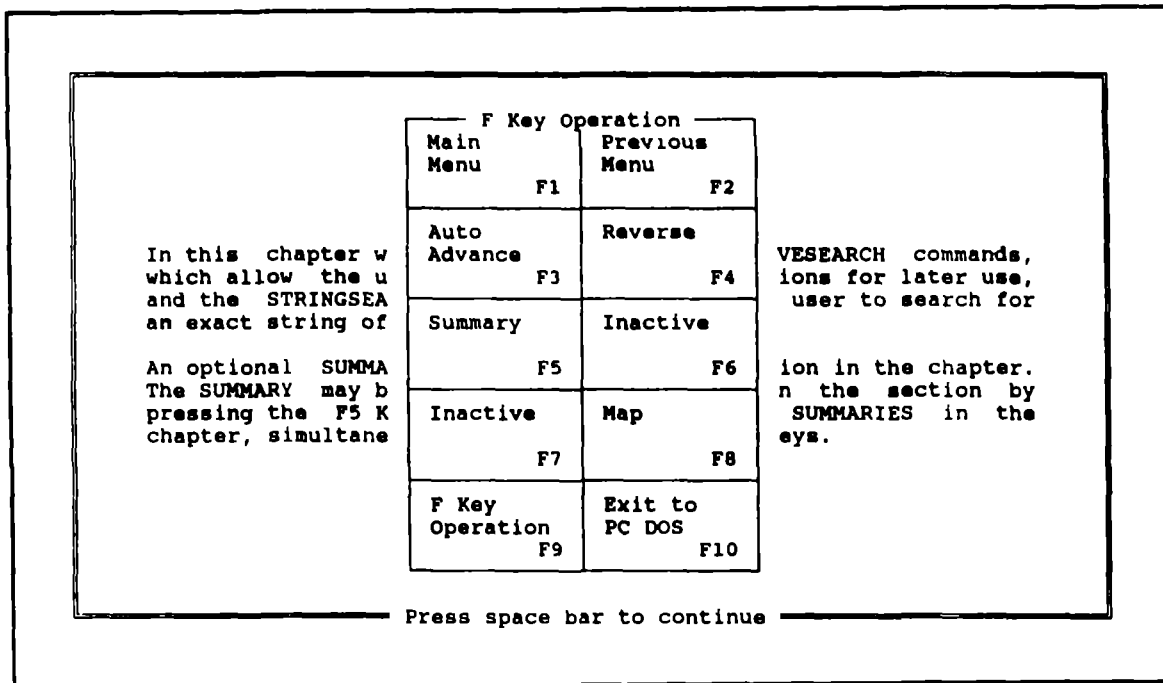


Figure 5 - F-Key Window

### Other Microcomputer Based Training Programs

ELHILL LEARN teaches the basic computer interactions with MEDLARS ELHILL databases, such as MEDLINE, TOXLINE, HEALTH and others. This program should be considered the prerequisite program and is included with the purchase of any of the following database-specific teaching programs (see Ordering Information): MEDTUTOR which teaches the specific computer interactions needed for MEDLINE; TOXLEARN which teaches the computer interactions necessary for TOXLINE AND TOXLIT; CHEMLEARN which teaches the computer interactions for CHEMLINE (it is being updated to include CHEMID). The ELHILL LEARN program provides fundamental information that is basic to all of the above-mentioned programs.

### Specifications

ELHILL LEARN is developed under PILOTplus using the NLM LEARN Programmer<sup>®</sup>. It runs on IBM-PC, PC-XT, PC-AT, PS/2, and fully compatible computers. It requires 512K RAM memory, one disk drive, and DOS 2.0 or higher. It supports most monochrome, color graphics, enhanced color graphics, or visual graphics displays.

### Ordering Information

A copy of ELHILL LEARN will be included at no additional charge with any purchase of CHEMLEARN

(PB 88-218144), TOXLEARN (PB 89-155766), or MEDTUTOR (PB 89-780027), each of which sells for \$25 per copy from NTIS. ELHILL LEARN can also be purchased separately for \$25 per copy. Its product number is PB 90-501792. In addition, a special package price for all of the current NLM microcomputer-based training programs (CHEMLEARN, TOXLEARN, MEDTUTOR, and ELHILL LEARN) of \$50 per package is available. The product number for the package is PB 90-780438. Please include the appropriate product number(s) with your order. The address and phone number for NTIS are:

National Technical Information Service  
U.S. Department of Commerce  
5285 Port Royal Road  
Springfield, VA 22161  
Phone: (703) 487-4650

Please direct questions or comments regarding ELHILL LEARN to:

Miriam Perkins  
Specialized Information Services  
National Library of Medicine  
Bethesda, MD 20894  
Phone: (301) 496-1131

### Updated Versions of MEDTUTOR and TOXLEARN

New versions for both MEDTUTOR and TOXLEARN are available from NTIS. They reflect 1990 MeSH and any other changes or additions to the MEDLINE and TOXLINE databases; use the product numbers listed above, when ordering updated versions.



# Serials Update

## INDEXED TITLES UPDATE, MAY 1990

The following titles cited in MEDLINE, HEALTH, and POPLINE have recently been selected for indexing, undergone a title change, or ceased publication. This list is not cumulative; the information provided is only for titles whose status has changed since the last UPDATE.

More detailed information may be found in SERLINE. For further information, please contact MMS or Ms. Esther Baldinger, (301) 496-1276, Technical Services Division, NLM.

## TITLES SELECTED FOR INDEXING, APRIL 1990

- |   |  |
|---|--|
| <p><b>IDL DENTESSENCE</b><br/>DENTESSENCE<br/>1,1989--<br/>QUINTESSENCE PUBLISHING COMPANY<br/>NEW MALDEN ENGLAND<br/>INDEXING BEGAN WITH V1N1,1989.<br/>ON ORDER 0957-378X<br/>SR0068060 JC: AR3</p>   | <p><b>IM LASERS IN SURGERY AND MEDICINE. SUPPLEMENT</b><br/>LASERS SURG MED SUPPL<br/>1,1989--<br/>WILEY LISS<br/>NEW YORK NY UNITED STATES<br/>CONSISTS OF ABSTRACTS OF THE ANNUAL MEETING<br/>OF THE AMERICAN SOCIETY FOR LASER MEDICINE<br/>AND SURGERY. PUBLISHER VARIES: ALAN LISS,<br/>VOL. 1 (1989); WILEY LISS, VOL. 2 (1990)-<br/><br/>INDEXING BEGAN WITH V1,1989.<br/>W1 LA784A 0196-8092<br/>SR0067961 JC: ARM<br/>WILEY LISS INC,41 EAST 11TH ST, NEW YORK<br/>NY 10003</p> |
| <p><b>HLI HEALTH LIBRARIES REVIEW</b><br/>HEALTH LIBR REV<br/>1N1,MAR 1984--<br/>BLACKWELL SCIENTIFIC<br/>OXFORD ENGLAND<br/>INDEXING BEGAN WITH V6N1,MAR 1989<br/>Z 675.M4 H388 0265-6647<br/>SR0054084 JC: ASN</p>  | <p><b>IDL MINERVA ORTOGNATODONTICA</b><br/>MINERVA ORTOGNATOD<br/>1N1,JAN/MAR 1983?--<br/>EDIZIONI MINERVA MEDICA<br/>TORINO ITALY<br/>INDEXING BEGAN WITH V7N2,APR-JUN 1989.<br/>W1 MI6489L 0394-168X<br/>SR0055602 JC: AR2</p>   |
| <p><b>INI JOURNAL OF THE AMERICAN ACADEMY OF NURSE</b><br/>PRACTITIONERS<br/>J AM ACAD NURSE PRACT<br/>1N1,JAN/MAR 1989--<br/>AMERICAN ACADEMY OF NURSE PRACTITIONERS<br/>PHILADELPHIA PA UNITED STATES<br/>INDEXING BEGAN WITH V1N2,APR-JUN 1989.<br/>W1 JO907XC 1041-2972<br/>SR0062432 JC: ASE</p> |  |

## TITLE CHANGES, APRIL 1990

- |  |  |
|--|--|
| <p><b>IM BRITISH JOURNAL OF GENERAL PRACTICE</b><br/>BR J GEN PRACT<br/>40N330, JAN 1990--<br/>ROYAL COLLEGE OF GENERAL PRACTITIONERS<br/>LONDON ENGLAND<br/>CONTINUES: JOURNAL OF THE ROYAL COLLEGE OF<br/>GENERAL PRACTITIONERS. SUPPLEMENTS<br/>ACCOMPANY SOME ISSUES.<br/>W1 BR532 0035-8797<br/>SR0067548 JC: ARK</p> | <p><b>IM EUROPEAN JOURNAL OF CANCER</b><br/>EUR J CANCER<br/>26,1990--<br/>PERGAMON PRESS ENGLAND<br/>OXFORD<br/>CONTINUES: EUROPEAN JOURNAL OF CANCER AND<br/>CLINICAL ONCOLOGY. OFFICIAL JOURNAL OF THE<br/>EUROPEAN ORGANIZATION FOR RESEARCH AND<br/>TREATMENT OF CANCER (EORTC) AND THE<br/>EUROPEAN ASSOCIATION FOR CANCER RESEARCH<br/>(EACR).<br/>W1 EU722 0277-5379<br/>SR0067988 JC: ARV</p> |
| <p><b>IM BULLETIN DU CANCER. RADIOTHERAPIE</b><br/>BULL CANCER RADIOTHER<br/>77N1,FEB 1990--<br/>ELSEVIER SCIENTIFIC<br/>PARIS FRANCE<br/>CONTINUES IN PART: BULLETIN DU CANCER.<br/>W1 BU647L 0924-4212<br/>SR0066475 JC: ARQ</p>   | <p><b>IM JOURNAL OF PAEDIATRICS AND CHILD HEALTH</b><br/>J PAEDIATR CHILD HEALTH<br/>26N1,FEB 1990--<br/>BLACKWELL SCIENTIFIC PUBLICATIONS<br/>MELBOURNE AUSTRALIA<br/>CONTINUES: AUSTRALIAN PAEDIATRIC JOURNAL.<br/>W1 JO824P 1034-4810<br/>SR0067487 JC: ARP</p>   |

NLM TECHNICAL BULLETIN MAY 90

<p>IDL REVISTA DE ACTUALIDAD ODONTOESTOMATOLOGICA                  ESPANOLA                  REV ACTUAL ODONTOESTOMATOL ESP                  50N390,JAN-FEB 1990--                  CONSEJO GENERAL DE COLEGIOS DE ODONTOLOGOS                  Y ESTOMATOLOGOS DE ESPANA                  MADRID SPAIN                  CONTINUES: REVISTA DE ACTUALIDAD                  ESTOMATOLOGICA ESPANOLA.                  IN PROCESS                  SR0068154 JC: ASK</p>	<p>IM REVISTA ESPANOLA DE ENFERMEDADES DIGESTIVAS                  REV ESP ENFERM DIG                  77,1990--                  EDITORIAL GARSI                  MADRID SPAIN                  CONTINUES: REVISTA ESPANOLA DE LAS                  ENFERMEDADES DEL APARATO DIGESTIVO. ORGANO                  OFICIAL DE LA SOCIEDAD ESPANOLA DE                  PATOLOGIA DIGESTIVA.                  INDEXING BEGAN WITH V77N1,JAN 1990.                  W1 RE532TK 1130-0108                  SR0068005 JC: ARX</p>
--	---

TITLES NO LONGER INDEXED AS OF APRIL 1990

<p>HLI HEATING, PIPING AND AIR CONDITIONING                  HEAT PIPING AIR COND                  1929--                  REINHOLD PUBLISHING                  CHICAGO IL UNITED STATES                  THIS TITLE IS NOT IN THE NLM COLLECTION                  INDEXING BEGAN WITH V50N1,JAN 1978 AND                  CEASED WITH V61N12,DEC 1989                  AHA                  H09780000 JC: F94</p>	<p>IM MEDIZINISCHE KLINIK. SUPPLEMENT                  MED KLIN SUPPL                  1/1985-2/86                  URBAN UND VOGEL                  MUNCHEN GERMANY, WEST                  ISSUES FOR 1/86-2/86 CALLED ALSO 1. JAHRG.                  NR. 1-2. LATER SUPPLEMENTS PUBLISHED IN                  MEDIZINISCHE KLINIK.                  INDEXING BEGAN WITH 1,1985.                  W1 ME8236TCG                  SR0056508 JC: MRT</p>
<p>HLI JOURNAL OF THE OPERATIONAL RESEARCH SOCIETY                  J OPER RES SOC                  29,1978--                  MACMILLAN PRESS                  BASINGSTOKE ENGLAND                  CONTINUES OPERATIONAL RESEARCH QUARTERLY.                  COVER TITLE: OR. THE JOURNAL OF THE                  OPERATIONAL RESEARCH SOCIETY. IMPRINT                  VARIES: OXFORD: PERGAMON, VOLS. 29-39                  (1978-88); BASINGSTOKE: MACMILLAN PRESS,                  VOL. 40 (1989)-                  INDEXING CEASED WITH V40N12,DEC 1989.                  W1 J0944F 0160-5682                  J32780000 JC: JHN</p>	<p>INI RECENT ADVANCES IN NURSING                  RECENT ADV NURS                  N1,1981-N24,1989                  CHURCHILL LIVINGSTONE                  EDINBURGH SCOTLAND                  FREQUENCY VARIES.                  INDEXING BEGAN WITH V22,1988.                  W1 RE105VN 0144-6592                  R05995000 JC: RAN</p>
	<p>HLI THERAPEUTIC RECREATION JOURNAL                  THER RECREATION J                  1,1967--                  NATIONAL THERAPEUTIC RECREATIONAL SOCIETY                  ARLINGTON VA UNITED STATES                  CONTINUES TR; THERAPEUTIC RECREATION.                  INDEXING CEASED WITH V22N4,1988.                  W1 TH158T 0040-5914                  T08380000 JC: VQN</p>



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# The NLM

GRATEFUL MED Users  
Version 5.0 Arrives! p. 20

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April 1990

No. 252

# Technical Bulletin

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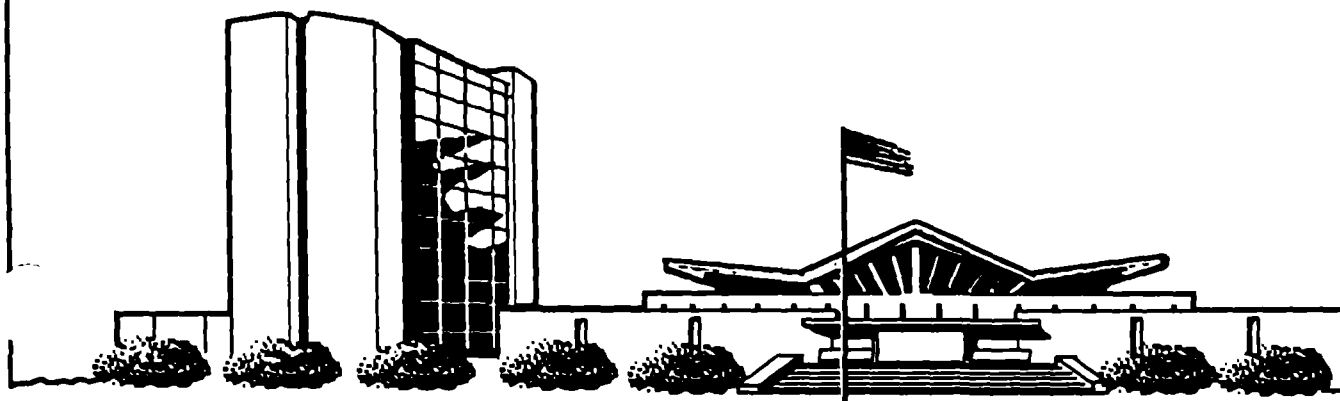
## MEDLINE Moving to Weekly Update Schedule

NLM is pleased to announce that beginning in June 1990 weekly updates to MEDLINE will be implemented at NLM. The first weekly update will take place June 2, 1990, and will correspond to the first week of the August update (9008 (Entry Month)).

### Background and Purpose

MEDLINE had traditionally been updated on a monthly basis. In April of 1988, NLM moved to a semi-monthly update of MEDLINE citing the library's goal of making the literature available online as quickly as possible. In the same spirit, we are now able to provide weekly updating to our users. All records added weekly during an update month will carry the same Entry Month (EM) tag. Thus, both the records added the first week of June and the records added the week of June 23 will carry the 9008 (EM) tag. See the revised update schedules on pages 8 and 9, and the search hint on page 6.

Continued on page 6



**NLM TECHNICAL BULLETIN APR 90**

MEDLARS DATABASE	TOTAL RECORDS	DATES COVERED	DATE LAST UPDATED	LATEST UPDATE TAG
ELHILL COMPUTER				
AIDSDRUGS	83		18 APR 90	
AIDSLINE**™	31,203	JAN 80-JUL 90	12 MAY 90	9007(EM)
AIDSTRIALS	238		05 MAY 90	
AVLINE®	20,559	THROUGH 1990	10 MAY 90	
BIOETHICS®	29,652	JAN 73-APR 90	13 APR 90	9004(EM)
CANCERLIT®	728,820	JAN 63-MAY 90	05 MAY 90	9005(EM)
CATLINE®	661,777	THROUGH 1990	10 MAY 90	
CHEMID	182,003		27 FEB 90	
CHEMLINE®	907,805		10 FEB 89	9002(EM)
CLINPROT®	7,701		21 APR 90	9004(EM)
DENTALPROJ	784		28 FEB 90	
DIRLINE®	17,046		28 FEB 90	
DOCUSER®	11,890		28 APR 90	
HEALTH	501,789	JAN 75-JUN 90	05 MAY 90	9006(EM)
HISTLINE®	93,994		05 MAY 90	9005(EM)
MEDLINE*®	748,580	JAN 88-JUL 90	12 MAY 90	9007(EM)
MED86	651,870	JAN 86-DEC 87	31 MAR 90	
MED83	890,574	JAN 83-DEC 85	17 FEB 90	
MED80	803,401	JAN 80-DEC 82	09 DEC 89	
MED77	775,781	JAN 77-DEC 79	09 DEC 89	
MED72	1,175,567	JAN 72-DEC 76	07 APR 90	
MED66	1,310,491	JAN 66-DEC 71	21 APR 90	
MESH VOC®	72,146	1990	12 MAY 90	
NAME AUTH®	345,841		12 MAY 90	
PDQ®		THRU MAY 90	01 MAY 90	
POPLINE™	174,118	1970-MAY 90	05 MAY 90	9005(EM)
SDILINE®	31,001	JUN 90	28 APR 90	9006(EM)
SERLINE®	74,513	1990	09 MAY 90	
TOXLINE®	805,424	1981-1990	14 APR 90	9004(EM)
TOXLINE65	707,374	PRE 1965-1980	31 MAR 90	
TOXLIT™	821,722	1981-1990	14 APR 90	9004(EM)
TOXLIT65	586,405	1965-1980	01 SEP 87	

\*N.B. FILE IS UPDATED SEMIMONTHLY; THIS IS PART 1 OF 2.

\*\*N.B. FILE IS UPDATED THREE TIMES A MONTH; THIS IS PART 1 OF 3.

TOXNET COMPUTER

CCRIS	2,190		13 MAR 90
DART™	2,086		11 MAY 90
DBIR™	1,340		16 APR 90
EMICBACK	67,975		02 JUN 89
ETICBACK	46,374		30 JAN 89
HSDB®	4,209		14 MAY 90
IRIS	400		07 MAY 90
RTECS®	104,509		02 MAY 90
TRI	76,737		20 NOV 89

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The NLM Technical Bulletin is an administrative document sent to formal members of NLM's MEDLARS Online Network.

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## Technical Notes

Whenever applicable, the heading of each Technical Note includes a reference to the section of the Online Services Reference Manual, 1988 that is considered most relevant to the item being discussed, e.g., (Manual 4.7.2). Users should keep in mind that the item may pertain to other sections as well.

### MEMORIAL DAY HOLIDAY SCHEDULE MONDAY, MAY 28, OBSERVED

System	Rates/Status
ELHILL	non-prime; non-guaranteed
TOXNET	non-prime; guaranteed
DOCLINE	not available

#### Service Desks

MMS	not staffed
DOCLINE	not staffed

### WEDNESDAY, MAY 30 (ACTUAL HOLIDAY)

System	Rates/Status
ELHILL	regular; guaranteed
TOXNET	regular; guaranteed
DOCLINE	N/A; guaranteed

#### Service Desks

MMS	staffed
DOCLINE	staffed

### GRATEFUL MED BBS TOLL-FREE NUMBER

The GRATEFUL MED Bulletin Board is now available over a toll-free 800 number, 1-800-525-5756. This number may be used with the GRATEFUL MED IBM Version 5.0 software. The new toll-free number makes all bulletin board functions more efficient, especially downloading files. The new number cannot be used with GRATEFUL MED Version 4.0 for the IBM or the GRATEFUL MED Version 1.01 for the Macintosh. However, the GRATEFUL MED Bulletin Board will continue to be available through the TELENET network with all versions of GRATEFUL MED (both IBM and Macintosh).

This new number will not work from Canada. A separate, unique 800 number will be added for Canadian access soon. Remember: there is no charge for using the GRATEFUL MED Bulletin Board, even using TELENET.

### GRATEFUL MED DEMONSTRATIONS, PRESENTATIONS

Two new demonstration programs for both the IBM-PC (5.0) and Macintosh (1.01) versions of GRATEFUL MED are now available for downloading from the GRATEFUL MED Bulletin Board. These brief programs demonstrate a MEDLINE search using GRATEFUL MED and can be used to show how GRATEFUL MED works. To use the Macintosh Version 1.01 demonstration, you must have Hypercard on your Macintosh.

You can also find on the GRATEFUL MED Bulletin Board a Harvard Graphics file, copyright 1988 Software Publishing Corporation, for GRATEFUL MED presentations or training courses. The Harvard Graphics file may be used with GRATEFUL MED Version 5.0 for the IBM. This file provides only a skeleton for a design of a presentation. The Harvard Graphics software (commercially available) is needed. The file only provides a bridge between the Harvard Graphics design screen and the GRATEFUL MED software.

The demonstration programs and the Harvard Graphics file must all be downloaded from the GRATEFUL MED Bulletin Board. None of these files are small, however. They will probably take at least 20-30 minutes each to download to a personal computer. Instructions for using these programs are in Bulletin 70 on the GRATEFUL MED Bulletin Board.

#### AQ FIELD IN MESH VOCABULARY FILE

As described in the February issue of the *Technical Bulletin* (Special Issue), the Allowable Topical Qualifiers (AQ) field was added to the online MeSH Vocabulary File (MeSH) in early 1989. The AQ field includes all topical subheadings that are permitted to be used with a particular MeSH heading. Some MeSH heading records in the online MeSH Vocabulary File do not contain an AQ field because topical subheadings are not allowed with them. These include Non-MeSH headings, check tags and other "regular" MeSH Headings.

#### POPLINE USING 1990 MESH

The POPLINE file became available for searching using 1990 MeSH as of March 31. Please check any automatic SDI's for changes in vocabulary.

#### TOXLINE REGENERATION

The regenerated TOXLINE and TOXLINE65 files were made available on March 31. The TOXBIB subfile and the BIOSIS subfile were updated with 1990 MeSH. In addition, the NIOSHTIC, EMIC, ETIC, EPIDEM, TSCATS, and CRISP subfiles were reloaded with additional and/or corrected records. Users are cautioned that various Entry Months (EM) are present on the reloaded files, so the Entry Month values should not be used for retrospective searching in TOXLINE.

#### COMMENTS (CM) FIELD

In 1989, a new field, Comments (CM), was added to

MEDLINE, its backfiles, HEALTH, and AIDSLINE records beginning with the 8904 (EM) update. The Comments (CM) field was created to provide a link between an article and subsequent comments about that article when both are from the same journal.

The Comments (CM) field was added to the CANCERLIT database on January 11, 1990, when it was regenerated with 1990 MeSH. This regeneration included the 8912 (EM) update. However, updates to CANCERLIT from the 9001 (EM) through the 9004 (EM) do not include the CM field even though the rubrics [comment] or [see comments] are present in the title field of the commenting article or the article being commented upon thus creating a blind reference. Beginning with the 9005 (EM), the CM field is once again included. NCI will add the CM field to records from 9001 to 9004 (EM) during year-end processing when the database is rebuilt.

As stated above, the regenerated TOXLINE was made available on March 31, 1990, 9004 (EM). During the regeneration, the TOXBIB and BIOSIS subfiles were updated with 1990 MeSH. Records pulled from MEDLINE include the comments rubric in the title; however, the CM field is missing. TOXLINE was updated on April 14 with an update tag of 9004 (EM). This was the first update to TOXLINE since the regeneration and represents two months of data. MEDLINE-derived records added to TOXLINE from the 9004 (EM) update forward include the CM field. The CM field will be added to earlier MEDLINE-derived records when TOXLINE is regenerated next year.

#### ADDITIONS TO FIGURES

The December 1989 issue of the *Technical Bulletin* contains an article on pages 8-13 titled "Sorting Retrieval and the Use of Precoded Sort Formats". You may want to annotate your copy of the *Technical Bulletin* with the following additions to the Figures:

pg. 10 - Figure 1

Add CHEMID to the exception statement in the database column for the following precoded sort formats: AUTI, JNL, LADA, TIAU.

These precoded sort formats may not be used with the ChemID database.



pg. 10 - Figure 1 (continued)

Add ChemID to the database column for the REGN  
precoded sort format.

REGN is the only precoded sort format which is  
available for the CHEMID database.

pg. 13 - Figure 2C

Add ChemID to REGN  
Add POPLINE to SOID

### General Schedule

Updates will occur on a weekly basis for 10 calendar months of the year, January through October; the eleventh and twelfth months, November and December, will continue on a monthly basis. Citations entering MEDLINE in these two calendar months correspond to the YY01 and YY02 Entry Months. The necessity for accommodating the year-end processing and MEDLINE Class Maintenance schedules requires that, in this period, a monthly schedule be retained.

A typical MEDLINE update takes 2-3 hours to complete. The MEDLINE file is unavailable for online searching while it is being updated. Therefore, every Friday night MEDLINE will be down from about 11 PM Friday - 2 AM Saturday, Eastern Time, (about 8 PM - 11 PM Pacific Time). MEDLARS and the other databases will be up; only MEDLINE will be unavailable. If you search during that timeframe, you will be automatically connected to the SDILINE file.

### SDILINE Status

SDILINE will remain unchanged. Neither the content nor the monthly replacement schedule will be affected. This means that in any given month, SDILINE will be 1-3 weeks behind MEDLINE for the period between the first weekly MEDLINE update and the closing update. Searchers using SDILINE to create their own monthly updates may wish to continue this practice, so as to keep their update procedures a simple monthly routine.

At the time of the monthly closing for MEDLINE, citations from all the weekly updates will be merged to form the new SDILINE. From this step forward, all normal activities currently associated with the monthly closing resume: automatic SDIs are run, publications processing takes place, and MEDLINE and SDILINE are in synchrony for the latest Entry Month.

### Effect on Publications and Other MEDLINE-Derived Files

Publication schedules will be unaffected by the weekly MEDLINE update. There will be no increase in the publication frequency of Index Medicus or other bibliographies containing citations from MEDLINE.

The update schedule for other MEDLINE-derived files (e.g., HEALTH, CANCERLIT, the TOXBIB portion of TOXLINE) will remain unchanged. However, the update schedule for AIDSLINE will change. Currently

AIDSLINE is updated 3 times a month -- the first two times are the present semi-monthly MEDLINE update dates and the third time is to pull HEALTH and CANCERLIT references. With the advent of weekly MEDLINE updates, AIDSLINE will be updated each week for the MEDLINE-derived records and a few days later, following the last weekly update of MEDLINE, the HEALTH and CANCERLIT-derived records will be entered into AIDSLINE.

The revised MEDLINE update schedule for 1990 is on page 8, and the revised AIDSLINE update schedule for 1990 is on page 9. We hope that our users will find the weekly updates to be a valuable enhancement to the NLM services.

### Special Note For MEDLINE Tape Licensees:

With the introduction of weekly MEDLINE updates, those MEDLINE tape licensees who are currently receiving semi-monthly update tapes will now have the option to move to weekly MEDLINE update tapes or receive monthly update tapes. Semi-monthly update tapes will no longer be available as of the 9008 (EM). Those MEDLINE tape licensees who receive semi-monthly updates have been sent a letter regarding this new option. Those MEDLINE tape licensees who receive monthly MEDLINE updates will have the option to move to weekly updates as of 9101 (EM) and will indicate that they wish to use this option by completing the annual Year-End Order Form (to be sent mid-August 1990).

### Search Hint:

Pretend that a search is run against MEDLINE on June 14. Three months later the patron wants an update done. How can you avoid retrieving the same citations from Parts 1 and 2 of the 9008 (EM) that were online on June 14?

- SS 1: Subject Strategy
- SS 2: 1 AND FROM 900608 TO 900628 (DA)
- SS 3: 1 AND 9009 (EM)
- SS 4: 1 AND 9010 (EM)
- SS 5: 1 AND 9011 (EM)
- SS 6: 2 OR 3 OR 4 OR 5

Note: It becomes even more important to write down the day a search was done if you do not want to retrieve and pay for data you've already seen. Direct searching with Entry Month tags remains a more cost effective search technique than ranging over a large timeframe.

Ranging on weekly segments can be used for current awareness searches as well. If a patron wants weekly

updates to a search, then use the pattern shown below in Figure 1.

On June 4	- SS 1: . . .	AND 9008 (EM)	
On June 11	- SS 1: . . .	AND 9008 (EM)	AND FROM 900601 TO 900607 (DA)
On June 18	- SS 1: . . .	AND 9008 (EM)	AND FROM 900608 TO 900614 (DA)
On June 25	- SS 1: . . .	AND 9008 (EM)	AND FROM 900615 TO 900621 (DA)
On July 3	- SS 1: . . .	AND 9008 (EM)	AND FROM 900622 TO 900628 (DA)

Figure 1

1990 WEEKLY UPDATE SCHEDULE FOR MEDLINE

<u>ENTRY MONTH</u>	<u>UPDATED MEDLINE AVAILABLE</u>	<u>DATE OF ENTRY (DA) RANGE</u>
9008 (EM)		
Part 1	JUN 2	FROM 900525 TO 900531 (DA)
Part 2	JUN 9	FROM 900601 TO 900607 (DA)
Part 3	JUN 16	FROM 900608 TO 900614 (DA)
Part 4	JUN 23	FROM 900615 TO 900621 (DA)
Part 5	JUN 30	FROM 900622 TO 900628 (DA)
9009 (EM)		
Part 1	JUL 7	FROM 900629 TO 900705 (DA)
Part 2	JUL 14	FROM 900706 TO 900712 (DA)
Part 3	JUL 21	FROM 900713 TO 900719 (DA)
Part 4	JUL 28	FROM 900720 TO 900726 (DA)
9010 (EM)		
Part 1	AUG 4	FROM 900727 TO 900802 (DA)
Part 2	AUG 11	FROM 900803 TO 900809 (DA)
Part 3	AUG 18	FROM 900810 TO 900816 (DA)
Part 4	AUG 25	FROM 900817 TO 900823 (DA)
9011 (EM)		
Part 1	SEP 1	FROM 900824 TO 900830 (DA)
Part 2	SEP 8	FROM 900831 TO 900906 (DA)
Part 3	SEP 15	FROM 900907 TO 900913 (DA)
Part 4	SEP 22	FROM 900914 TO 900920 (DA)
Part 5	SEP 29	FROM 900921 TO 900927 (DA)
9012 (EM)		
Part 1	OCT 6	FROM 900928 TO 901004 (DA)
Part 2	OCT 13	FROM 901005 TO 901011 (DA)
Part 3	OCT 20	FROM 901012 TO 901018 (DA)
Part 4	OCT 27	FROM 901019 TO 901025 (DA)

1990 UPDATE SCHEDULE FOR AIDSLINE

<u>ENTRY MONTH</u>	<u>UPDATED AIDSLINE AVAILABLE</u>
9008 (EM)	
Part 1	JUN 2
Part 2	JUN 9
Part 3	JUN 16
Part 4	JUN 23
Part 5	JUN 30
Part 6	JUL 10*
9009 (EM)	
Part 1	JUL 7
Part 2	JUL 14
Part 3	JUL 21
Part 4	JUL 28
Part 5	AUG 7*
9010 (EM)	
Part 1	AUG 4
Part 2	AUG 11
Part 3	AUG 18
Part 4	AUG 25
Part 5	SEP 4*
9011 (EM)	
Part 1	SEP 1
Part 2	SEP 8
Part 3	SEP 15
Part 4	SEP 22
Part 5	SEP 29
Part 6	OCT 9 *
9012 (EM)	
Part 1	OCT 6
Part 2	OCT 13
Part 3	OCT 20
Part 4	OCT 27
Part 5	NOV 6*

\*The last update portion is the HEALTH-derived and CANCERLIT-derived data. The other update portions are the MEDLINE-derived data. Please note that the the last update portion to complete an Entry Month routinely occurs about three days after Part 1 of the next Entry Month is added, e.g., Part 6 of 9008 is added July 10 after Part 1 of 9009 is added July 7.

## A Wish Comes True: Implementation of EXPLODE All on May 6, 1990

NLM is pleased to announce the implementation on May 6, 1990 of an automatic "all" response to an online explode instruction on the ELHILL system. This new capability was tested by system users the week of March 26, 1990, and user feedback was quite positive. During the test period, there was no adverse impact on response time, computer work load or searching costs. An automatic "all" response to an online explode means that for any MeSH heading used in an EXPLODE statement, the ELHILL software now gathers all the tree numbers and "ORs" all the indented headings. This provides the searcher with a single, comprehensive retrieval. As a result of this automatic "all" response, the multi-meaning message for an EXPLODE of a MeSH heading in more than one tree will no longer appear. This also means that if you need the concepts represented by only one tree number of a multi-treed heading, you will need to explode that particular tree number, rather than the heading.

For example:

The MeSH heading EYE exists in 2 trees as follows:

Eye A1.456.505.420  
 Eyebrows A1.456.505.420.338  
 Eyelids A1.456.505.420.504 (+)

Eye A9.371  
 Anterior Eye Segment A9.371.60 (+)  
 Conjunctiva A9.371.192  
 Eyelids A9.371.337 (+)  
 Lacrimal Apparatus A9.371.463 (+)  
 Lens, Crystalline A9.371.509 (+)  
 Oculomotor Muscles A9.371.613  
 Pigment Epithelium of Eye A9.371.670  
 Retina A9.371.729 (+)  
 Sclera A9.371.784  
 Uvea A9.371.894 (+)  
 Vitreous Body A9.371.943

With the automatic all response to an EXPLODE instruction the following takes place:

```

SS 1 /C?
USER:
exp eye                                o ELHILL is 'OR'ing together an
                                        EXPLODE of both tree numbers.
PROG:
SS (1) PSTG (10345)
    
```

Figure 1 - New Explode Response

If you only want to search the exterior parts of the eye and not the second tree number representing the interior parts of the eye, you need to do the following search:

```
SS 1 /C?
USER:
exp A1.456.505.420
```

```
PROG:
SS (1) PSTG (1759)
```

In the past if a searcher was interested in all concepts of a particular heading represented by multiple trees, it was necessary to perform multiple explodes, selecting a different tree number each time and then the searcher had the additional burden of "ORing" the various sets together. Figure 2 shows the searching strategy for the old methodology.

Remember that an offline EXPLODE (i.e., an EXPODE command in OFFSEARCH or an AUTOMATIC SDI) has always "OR"ed together retrieval from all possible trees. So now EXPLODing online and offline yield identical retrieval.

Please note, however, that there are five Pre-Explosions

(PX) that are multi-treed. These five PXes do NOT represent all headings from each tree number; only one tree number is currently chosen for a Pre-Explosion. This will be corrected to allow for multiple trees for the 1991 system. Until then please be aware that the following Pre-Explosions are limited to only one tree and, therefore, do not retrieve comprehensive results:

Chemistry, Analytical (E5.196)  
 Dentistry (E6)  
 Genetics (G5)  
 Metals (D1.552)  
 Neurologic Manifestations (C10.597)

Pre-Explosions are more cost-effective and computer efficient than attempting to do an online explode for these large areas, so continue to use a PX when you can.

The text of the online Explain EXPLODE has not yet been revised to reflect this system change.

This new feature of an automatic "all" response to an EXPLODE command should prove beneficial to searchers. You'll now get comprehensive retrieval in one easy step! NLM again thanks all system users for their testing the week of March 26 and for their many calls and comments about this wish come true.

```

USER:
exp eye

PROG:
MM (EYE) (2)
    1 A1.456.505.420
    2 A9.371
NUMBER, NONE, OR EXPAND-

USER:
1

PROG:
SS (1) PSTG (1759)

SS 2 /C?
USER:
exp eye

PROG:
MM (EYE) (2)
    1 A1.456.505.420
    2 A9.371
NUMBER, NONE, OR EXPAND-

USER:
2

PROG:
SS (2) PSTG (10331)

SS 3 /C?
USER:
1 or 2

PROG:
SS (3) PSTG (10345)
    
```

Figure 2 - Old Explode Response

# Announcing a New Bibliographic Database on Developmental and Reproductive Toxicology: DART™

Stacey J. Arnesen,  
Specialized Information Services, NLM

Type FILE DART in TOXNET to access a new database on Developmental And Reproductive Toxicology. DART is a bibliographic database containing citations to literature on chemical, physical, and biological agents that may cause birth defects. The database currently contains over 1,000 citations to literature published since 1989 and it is expected that 3,600 citations will be added each year. Records in DART contain complete bibliographic citations, abstracts (if available), Medical Subject Headings (MeSH), chemical names and Chemical Abstract Service Registry Numbers (CAS RNs). DART is supported by the National Institute of Environmental Health Sciences, the Environmental Protection Agency, the Agency for Toxic Substances and Disease Registry, and the National Library of Medicine.

DART is a continuation of the ETICBACK (Environmental Teratology Information Center Backfile) database, which is also available on TOXNET. ETICBACK also covers citations to literature on agents that may cause birth defects. It contains over 46,000 citations to literature published from 1950-1988. Records in ETICBACK contain complete bibliographic citations, special keywords from the ETIC vocabulary (instead of MeSH), chemical names, and CAS RNs.

Approximately 60% of DART is derived from MEDLINE. Each month, a search profile consisting of MeSH headings and text words is run against SDILINE and the records retrieved by the search are added to the DART database on TOXNET. Records derived from MEDLINE can be identified by the acronym MED in the Source Identifier (SI) field. Knowing about the

chemicals that have been tested for teratogenic activity is very important to researchers and health professionals concerned with the potential toxicity of chemicals. In order to meet the needs of these users, the articles from the MEDLINE records are reviewed and the MeSH indexing is supplemented with additional chemical indexing. The names and CAS RNs for all chemicals tested are indexed in the Name of Substance (NAME) field and CAS Registry Number field, respectively. In addition, any other chemicals administered to an organism or test system (solvents, anesthetics, etc.) are indexed in the Additional Agents Used (AAU) field and their CAS RNs are indexed in the Additional Agents Registry Number (AARN) field. Figure 1 is a sample MEDLINE-derived record with supplemental chemical indexing.

The rest of the database (approximately 40%) is composed of citations to literature not included in MEDLINE, such as meeting abstracts, symposia proceedings, monographs, technical reports, and articles from journals not indexed for MEDLINE. For example, the 159 abstracts from the Japanese Teratology Society Annual Meeting, which were published in a recent issue of the journal *Teratology*, have been indexed for DART. Records created especially for this database can be identified by the acronym TER in the Source Identifier (SI) field. These records will look identical to the records derived from MEDLINE. They will contain bibliographic information, MeSH, and names and CAS RNs for all chemicals tested or administered to a test system. Figure 2 is a sample record that was created especially for DART.



DART RECORD NUMBER	673
LAST REVISION DATE	900228
ENTRY MONTH	9002
UPDATE HISTORY	Complete Update on 02/28/90, 3 fields added/edited/deleted.
UPDATE HISTORY	Complete Update on 01/22/90, 12 fields added/edited/deleted.
RECORD LENGTH	2100
SOURCE IDENTIFIER	MED/90049853
AUTHOR(S)	Danielsson BR
AUTHOR(S)	Reiland S
AUTHOR(S)	Rundqvist E
AUTHOR(S)	Danielson M
TITLE OF ARTICLE	Digital defects induced by vasodilating agents: relationship to reduction in uteroplacental blood flow.
SOURCE	Teratology 1989 Oct;40(4):351-8
ABSTRACT	The effects of nifedipine (40-100 mumol/kg), nitrendipine (40 and 80 mumol/kg), hydralazine (381 and 763 mumol/kg), felodipine (12 mumol/kg), and the pharmacologically inactive first-step metabolite of felodipine, H152/37 (80 mumol/kg) were studied in rabbits (New Zealand White) after oral administration on day 16 of gestation. The vasodilating drugs--nifedipine, nitrendipine, felodipine, and hydralazine--all induced digital defects in the fetuses. The defects consisted of reduction, absence, or abnormal structure of the distal phalanx of especially the fourth digit on the hind paw(s). Histologically, a disturbed differentiation of the cartilage, and secondarily also of the ossification centre and joint structure of the distal phalanx, was observed. In contrast, no digital abnormalities were observed after administration of vehicle or H152/37. The findings that vasodilators with different structures, like dihydropyridines and hydralazine, induced the same type of digital defects strongly suggest that the observed phalangeal defects are secondary to pharmacological action, and not related to chemical structure. A decrease in uteroplacental blood flow, caused by excessive hypotension, is discussed as the most probable mechanism underlying the observed defects.

Figure 1A - Sample DART record: MEDLINE derived record

ABSTRACT AUTHOR ADDRESS	Author AB Astra, Safety Assessment, S:odert:alje, Sweden.
LANGUAGE	Eng
PUBLICATION TYPE	Journal Article
INTERNATIONAL STANDARD SERIAL NUMBER	0040-3709
JOURNAL TITLE CODE	VM8
JOURNAL TITLE ABBREVIATION	Teratology
YEAR OF PUBLICATION	1989
MESH HEADING/SUBHEADING	Abnormalities, Drug-Induced/*ETIOLOGY
MESH HEADING/SUBHEADING	Animal
MESH HEADING/SUBHEADING	Female
MESH HEADING/SUBHEADING	Hindlimb
MESH HEADING/SUBHEADING	Human
MESH HEADING/SUBHEADING	Molecular Structure
MESH HEADING/SUBHEADING	Placenta/*BLOOD SUPPLY
MESH HEADING/SUBHEADING	Pregnancy
MESH HEADING/SUBHEADING	Rabbits
MESH HEADING/SUBHEADING	Regional Blood Flow/DRUG EFFECTS
MESH HEADING/SUBHEADING	Toes/*ABNORMALITIES
MESH HEADING/SUBHEADING	Uterus/*BLOOD SUPPLY
MESH HEADING/SUBHEADING	Vasodilator Agents/*TOXICITY
NAME OF SUBSTANCE	*Hydralazine; 86-54-4
NAME OF SUBSTANCE	*Nifedipine; 21829-25-4
NAME OF SUBSTANCE	*Nitrendipine; 39562-70-4
NAME OF SUBSTANCE	*Felodipine; 72509-76-3
NAME OF SUBSTANCE	*H152/37; UNKNOWN
ADDITIONAL AGENTS USED	Pregnyl; 9002-61-3
ADDITIONAL AGENTS USED	Carboxymethyl cellulose; 9000-11-7
ADDITIONAL AGENTS USED	Methohexital sodium; 309-36-4
ADDITIONAL AGENTS USED	Brietal; 151-83-7

Figure 1B - Sample DART record: MEDLINE derived record

DART RECORD NUMBER	373
LAST REVISION DATE	900228
ENTRY MONTH	8912
UPDATE HISTORY	Complete Update on 02/28/90, 16 fields added/edited/deleted.
RECORD LENGTH	1754
SOURCE IDENTIFIER	TER/90000060
AUTHOR(S)	Yamamoto Y
AUTHOR(S)	Tanimura T
TITLE OF ARTICLE	Effect of prenatal methylazoxymethanol acetate exposure on the motor behavior of the rat offspring.
SOURCE ABSTRACT	<p>Senen Ijo 1989;29(2):51-8</p> <p>Crj:CD (Sprague-Dawley) rats were treated intraperitoneally with methylazoxymethanol acetate (MAM) at 0 and 30 mg/kg on day 13 of gestation and were allowed to deliver. On day 4 postpartum, the litter size was adjusted to 8 with an equal sex distribution. Two males and females from each litter were tested between 3 and 5 weeks of age for open field activity and rotorod performance. At week 7 postpartum, all offspring were sacrificed and examined for brain anomalies. The open field activity of MAM treated offspring tended to increase; number of ambulations and rearings were significantly increased at 3 weeks of age in male offspring treated with MAM when compared to those of male controls. At 3 weeks of age, the male offspring in the MAM treated group showed significantly reduced rotorod performance when compared to that in the control. Severe reductions of the cerebral hemispheres were observed at 7 weeks of age in the male and female offspring treated with MAM. These results indicate that the motor behavior of offspring is significantly impaired at weaning when they were exposed to MAM prenatally. The effects were more severe for males than females.</p>
ABSTRACT AUTHOR ADDRESS	<p>Author</p> <p>Department of Anatomy, Kinki University  School of Medicine, Osakasayamaf, Osaka  589, Japan</p>

Figure 2A - Sample DART record: Non-MEDLINE derived record

LANGUAGE	Eng
PUBLICATION TYPE	Journal Article
INTERNATIONAL STANDARD SERIAL NUMBER	0914-3505
JOURNAL TITLE	Senten Ijo
ABBREVIATION	
YEAR OF PUBLICATION	1989
MESH HEADING/SUBHEADING	Motor Activity/*DRUG EFFECTS
MESH HEADING/SUBHEADING	Fetus/*DRUG EFFECTS
MESH HEADING/SUBHEADING	Rats, Inbred Strains
MESH HEADING/SUBHEADING	Methylazoxymethanol Acetate/*TOXICITY
MESH HEADING/SUBHEADING	Age Factors
MESH HEADING/SUBHEADING	Sex Factors
MESH HEADING/SUBHEADING	Brain/DRUG EFFECTS/PATHOLOGY
MESH HEADING/SUBHEADING	Pregnancy
MESH HEADING/SUBHEADING	Rats
MESH HEADING/SUBHEADING	Animal
MESH HEADING/SUBHEADING	Male
MESH HEADING/SUBHEADING	Female
NAME OF SUBSTANCE	*Methylazoxymethanol acetate; 592-62-1
ADDITIONAL AGENTS USED	Saline; 31661-12-8

Figure 2B - Sample DART record: Non-MEDLINE derived record

DART records contain many of the same fields as MEDLINE records (Figure 3). As with all TOXNET databases, DART is organized hierarchically, with 5 categories, 3 headers, and 30 data fields. The 5 categories are:

**ADMINISTRATIVE INFORMATION (DART)**  
record number, entry month, last revision date, and record length)

**BASIC BIBLIOGRAPHIC INFORMATION (BIB)**  
(source identifier, authors, title, source, and abstract)

**OTHER BIBLIOGRAPHIC INFORMATION (OBIB)** (address, language, publication type, international standard serial number, journal title abbreviation, etc.)

MeSH (MeSH main headings and subheadings), and

**SUBSTANCE IDENTIFICATION (ID)** (names of substances, CAS RNs, additional agents used, etc.).

The DART database can be searched in a variety of ways including by author (use MEDLINE format), names of chemicals, CAS RNs, journal title abbreviations, search terms, and MeSH. At this time, only limited MeSH searching capabilities are available in DART. Main headings, subheadings, and main heading/subheading combinations may be searched in DART. In addition, an asterisk (\*) on the MeSH heading may be used to indicate the main point of the article. However, advanced search commands, such as:

EXPLODE,  
PRE-EXPLOSIONS,  
SUBS APPLY/SUBS CANCEL, and  
TREE

cannot be used in DART yet. Also, users must enter the main heading as it appears in the 1990 Annotated MeSH and use the full subheading name (the two-character

abbreviations cannot be used at this time). See references from MeSH are not yet available in DART. An example of a search for the etiology of cleft palate is shown in Figure 4. As with MeSH headings, an asterisk (\*) may be used on a Name of Substance to indicate that the chemical is the main point of the article.

Although there are separate searchable Registry Number (RN) and Additional Agents Registry Number (AARN) fields in DART, the RNs appear in the Name of Substance or Additional Agents Used fields in printed records. The RNs are separated from the Name of Substance or the Additional Agents Used by a semicolon. This print format should make it easy for users to identify and locate RNs for particular chemicals.

In addition to providing access to DART and ETICBACK on TOXNET, both databases also will be subfiles of TOXLINE, where they can be accessed through GRATEFUL MED. ETICBACK is currently a subfile of TOXLINE, with the acronym ETIC in the Secondary Source Identifier (SI) field. DART will be added to TOXLINE (with the acronym DART in the SI field) within a few months.

In future years, the Government agencies supporting DART plan to expand the scope of the database from teratology to other areas of reproductive and developmental toxicology. Future areas of expansion include fertility problems, sterility, and neonatal and childhood exposure to toxic agents. NLM hopes that DART will be a useful source of bibliographic information for teratologists, obstetricians, gynecologists, pediatricians, and genetic counselors.

For further information about DART please contact:  
National Library of Medicine  
Specialized Information Services  
8600 Rockville Pike  
Bethesda, MD 20894  
(301) 496-3147

	**	ADMINISTRATIVE INFORMATION
DTN		DART Record Number
DATE		Last Revision Date
EM		Entry Month
RLEN		Record Length
BIB	**	BASIC BIBLIOGRAPHIC INFORMATION
CIT	*	Citation
SI		Source Identifier
AU		Author(s)
TI		Title of Article
SO		Source
AB		Abstract
OBIB	**	OTHER BIBLIOGRAPHIC INFORMATION
CREL	*	Citation Related
AA		Abstract Author
AD		Address
EA		English Abstract Indicator
GCN		Grant/Contract Funding
LA		Language
PT		Publication Type
RF		Number of References
TT		Transliterated/Vernacular Title
PS		Personal Name as Subject
SREL	*	Source Related
ISSN		International Standard Serial Number
ISBN		International Standard Book Number
JC		Journal Title Code
TA		Journal Title Abbreviation
YR		Year of Publication
MeSH	**	MeSH Indexing
MH		MeSH Heading
SH		MeSH Subheading
ID	**	Substance Identification
NAME		Name of Substance
RN		CAS Registry Number
AAU		Additional Agents Used
AARN		Additional Agents Used CAS Registry Number
EC		Enzyme Classification

Figure 3 - DART Unit Record

To search for the etiology of cleft palate, search for the MeSH main heading/subheading combination: **cleft palate/etiology**.

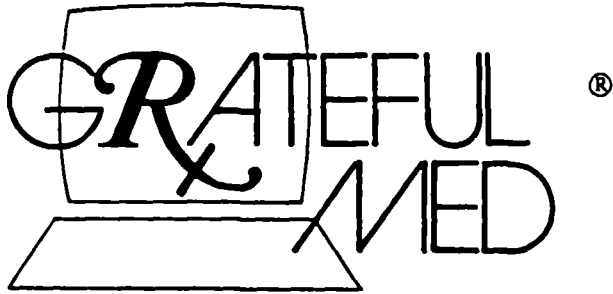
[DART] SS 1 /cf?  
**cleft palate/etiology**  
 SEARCH IN PROGRESS  
 SS (1) PSTG (3)

Print the Dart Record Number, Source Identifier, Title, and Record Length for the three records.

[DART] SS 2 /cf?  
 USER:  
**prt**

- 1 - DART  
 DTN - 75  
 SI - MED/89337146  
 TI - Pathogenesis of cleft palate in Treacher Collins, Nager, and Miller syndromes.  
 RLEN - 2472
- 2 - DART  
 DTN - 878  
 SI - TER/90000115  
 TI - Epidemiological approaches for identifying risk factors in human congenital malformations.  
 RLEN - 2203
- 3 - DART  
 DTN - 943  
 SI - TER/90000180  
 TI - Epidemiological investigation on cleft lip or palate. No. 8. Effect of the sexual difference on the development of cleft lip and/or palate.  
 RLEN - 1522

Figure 4 - Sample Search in DART



**VERSION 5.0**

[Editor's Note: Each month the NLM features a column concerning GRATEFUL MED, often consisting of questions/answers. Contributions for this column will be appreciated.]



**Version 5.0 is on its way.**

Registered IBM users should receive the new Version 5.0 in the mail by June 1. The box contains disks for both 5-1/4 and 3-1/2 inch formats, a newly revised User's Guide, a copy of the tutorial program How To (in both formats), a Troubleshooting Guide, and a packet labeled, "Open Me First." This packet includes an application for a User ID code (which you won't need if you already have a code and password), and a pink form which you should fill out and return to ensure that you will be on the mailing list for the next version.

**New and Improved mailing list.**

This year we tried to create a more accurate mailing list for Version 5.0 by asking IBM version owners to register by card or phone.

**Didn't get your new version?**

As hard as we tried... some orders may have gone astray. If you ordered a previous IBM version and have not received Version 5.0 by June 1, please call the National Technical Information Service (NTIS), the distributor of our program, at (703) 487-4660 to confirm your address and request your copy. If the software is shared among a group of people (office, lab, clinic, etc.) please check to see if anyone else received Version 5.0 before calling NTIS.

**You got too many copies!**

If you received too many copies of the software, please return the extras, unopened to NTIS by writing, "RETURN TO SENDER" on the front of the box.

**Open the "Open Me First!" packet.**

Fill out and return the enclosed pink Registration Card.

The first line calls for a Registration No. This is a 9-digit number you *may* find on the mailing label. If you don't have this number simply leave that blank.

**Erratum.**

The "Welcome to GRATEFUL MED" sheet should read: How To disk package contains one 3-1/2 disk labelled How To.

**The transition to the new version:**

Unlike previous versions, Version 5.0 installation instructions specify that you should NOT install it over the previous version. This is because many of the changes made to this year's program are not fully compatible with Version 4.0 (or any previous version). Here are steps to follow to ensure a smooth transition to Version 5.0:

1. Locate your User ID code and Passwords, and network telephone numbers from the CHANGE/SETUP section of Version 4.0. Copy this information or use Shift-PrtSc to copy the screens containing this information. You should also make a note as to how the other options are set, e.g., COM port.
2. Install Version 5.0 following the directions in the User's Guide. Do not install over the old version. Install using a new directory name, e.g., "GM5."
3. After installation is complete, you must type, "SETUP" at the DOS prompt of your new subdirectory in order to re-enter the necessary information (code, password, telephone numbers, etc.).
4. After completing SETUP type "Search" at the DOS prompt to enter the program.
5. Try a few searches to confirm everything is working, then delete any old versions. This will help free up room on your hard disk and also prevent possible confusion later on over which subdirectory to use.

Be sure to delete only the subdirectory with the old version of GRATEFUL MED. You should also remove the name of this old directory. Here is a sample, removing an old subdirectory called, "GM4," using DOS commands:

**STOP!** If you have never done this before, please refer to your DOS manual or get assistance from a knowledgeable person. If you are not accurate, you could delete the entire contents of your hard disk!





Monthly Search Hint

## Online Searching of New Concepts - Entrepreneurship

Anne Fox Kiger,  
American Hospital Association Resource Center

To search the Health Planning & Administration database (HEALTH) or the Hospital Literature Index effectively for new concepts during the lag time in assimilating these concepts into MESH, it helps to know the Text Words and Main Headings through which articles on such new concepts may be found. This article focuses on the concept 'entrepreneurship.'

While entrepreneurship is not new to the field of health care administration, it has recently assumed a high level of visibility in the literature. Webster's Ninth New Collegiate Dictionary defines an entrepreneur as 'one who organizes, manages, and assumes the risks of a business or enterprise.' (1) According to a recent survey, the majority of hospital administrators now consider operating their facilities in a businesslike manner to be the activity most critical to hospital survival. (2)

With the emphasis on cost control in the current health care environment, hospitals and health care practitioners are moving toward recruiting and retaining customers in order to compete for scarcer public and private funds. Diversification, marketing, advertising, sales, mergers, strategic planning, use of venture capital, product lines, innovation in both managerial structure and alternative delivery modes - all these reflect the concern of today's providers with their competitive status and their development of expertise in activities that increase business. Emphasis is being placed on marketplace enterprise, return on investment, and revenue - on the part of health care practitioners and both not-for-profit and investor-owned hospitals.

Indexing for this topic lacks consistency not only because there is no single term that always expresses 'entrepreneurship,' but because it has so many different aspects. Online searching provides the most effective method of finding citations, and because entrepreneurship is a facet of management and economics, the most appropriate MEDLARS database is HEALTH.

Three search strategies are illustrated; they were run against HEALTH after the April 1990 update. The first,

Text Word search, provides immediate, on-target results. Analysis of the retrieval shows one journal specifically on the topic, leading to the second strategy, Journal Title search. Subsequent analysis of the Main Headings to which the retrieved articles from the first search are most frequently indexed provides the third strategy, Main Heading search.

Figure 1 illustrates searching by Text Words (TW). Variations of entrepreneurship and intrapreneurship provide 211 on-target citations, while combinations of four Text Words (business, innovation, venture, and creativity) provide 95 additional citations, with 88 (93%) of these relevant.

A scan of these citations shows one Journal Title that is devoted to entrepreneurship -- Hospital Entrepreneurs Newsletter. The List of Serials Indexed for Online Users, 1990 (3) indicates that this title changed in November 1988 to Hospital Strategy Report. SERLINE may also be used to obtain this same information online. As shown in Figure 2, both of these titles are used in Journal Title Abbreviation (TA) searches, producing an additional 68 citations. While all of the citations from the former title are on-target, the focus of the journal changed with the adoption of the new title. Consequently, only 53 (78%) of the additional citations from the Journal Title search are relevant.

While these two strategies retrieve 352 relevant citations, searching by coordination of Main Headings provides a more exhaustive retrieval. Figure 3 illustrates searching by Main Headings. These Main Headings are those most frequently used to index the citations retrieved by the first Text Word search and the first Journal Title search. The Main Heading to which entrepreneurship is most frequently indexed is **MARKETING OF HEALTH SERVICES** (41 occurrences). Other likely Main Headings, followed by their frequency of appearance, include:

COMMERCE (39)  
ECONOMIC COMPETITION (37)  
ORGANIZATIONAL INNOVATION (32)  
CREATIVENESS (21)  
HOSPITAL RESTRUCTURING (20)

After analyzing how they are used in indexing these citations, these Main Headings are entered in 4 combinations that reflect this indexing. This produces a total of 143 articles, 118 of which do not appear previously. Of these 118, 92 (78%) are either on-target or appear related to some aspect of entrepreneurship. All three strategies together produce 492 citations, of which 444 (90%) are to some degree relevant.

SS 1 /C?  
 USER:  
 file health

PROG:  
 YOU ARE NOW CONNECTED TO THE HEALTH PLANNING & ADMIN (1975 FORWARD)  
 FILE.

SS 1 /C?  
 USER:  
 (tw) all entrepreneur: or all intrapreneur:

PROG:  
 SS (1) PSTG (211)

SS 2 /C?  
 USER:  
 prt 2 ti, mh, so

PROG:

1

TI - Nurse entrepreneurs: the quiet revolution.  
 MH - \*Career Choice  
 MH - Economics, Nursing/\*TRENDS  
 MH - Human  
 MH - \*Nurses  
 MH - \*Private Practice  
 MH - Societies, Nursing  
 MH - United States  
 SO - Imprint. 1989 Dec-1990 Jan;36(5):56-9.

2

TI - The influence of entrepreneurs in medical rehabilitation.  
 MH - Capitation Fee/TRENDS  
 MH - Human  
 MH - Length of Stay  
 MH - \*Marketing of Health Services  
 MH - Rehabilitation/\*ECONOMICS/TRENDS  
 MH - United States  
 SO - Health Care Manage Rev. 1989 Fall;14(4):41-9.

SS 2 /C?  
 USER:  
 (tw) business

PROG:  
 SS (2) PSTG (1918)

SS 3 /C?  
 USER:  
 (tw) all innovat: or all ventur: or all creativ:

PROG:  
 SS (3) PSTG (3298)

SS 4 /C?  
 USER:  
 2 and 3

Figure 1A - Text Word Search

PROG:  
SS (4) PSTG (103)

SS 5 /C?  
USER:  
4 and not 1

PROG:  
SS (5) PSTG (95)

SS 6 /C?  
USER:  
prt 3 ti

PROG:

1  
TI - Oregon's Patrick case and Supreme Court decision.

2  
TI - Strategic considerations for the biotechnology business to the year 2000.

3  
TI - Business software for nurse executives.

SS 6 /C?  
USER:  
1 or 4

PROG:  
SS (6) PSTG (306)

Figure 1B - Text Word Search

```

SS 7 /C?
USER:
(ta) hosp entrep news1

PROG:
SS (7) PSTG (35)

SS 8 /C?
USER:
prt 2 ti, mh

PROG:

1
TI - Executive strategy: exceptional strategy yields exceptional
    results.
MH - Hospital Administration/*TRENDS
MH - Hospital Restructuring/*TRENDS
MH - Investments/ECONOMICS
MH - Organizational Innovation
MH - Planning Technics
MH - Product Line Management/TRENDS
MH - United States

2
TI - Portfolio management for hospitals.
MH - Decision Making
MH - *Financial Management
MH - *Financial Management, Hospital
MH - *Hospital Administration
MH - Hospital Administrators
MH - Investments/*ECONOMICS
MH - Planning Technics
MH - *Product Line Management
MH - United States

SS 8 /C?
USER:
(ta) hosp strategy rep

PROG:
SS (8) PSTG (35)

SS 9 /C?
USER:
7 or 8

PROG:
SS (9) PSTG (70)

SS 10 /C?
USER:
9 and not 6

PROG:
SS (10) PSTG (68)

SS 11 /C?
USER:
6 or 9

PROG:
SS (11) PSTG (374)

```

Figure 2 - Title Abbreviation Search

```

SS 12 /C?
USER:
marketing of health services or commerce or econ competition or

PROG:
CNT 12

USER:
hosp restructuring

PROG:
SS (12) PSTG (8093)

SS 13 /C?
USER:
creativity or organ innovation

PROG:
SS (13) PSTG (1263)

SS 14 /C?
USER:
12 and 13

PROG:
SS (14) PSTG (143)

SS 15 /C?
USER:
14 and not 11

PROG:
SS (15) PSTG (118)

SS 16 /C?
USER:
prt 4 ti, so

PROG:

1
TI - Managing resources for world-class performance.
SO - J Bus Strategy. 1990 Jan-Feb;11(1):48-50.

2
TI - Innovative solutions to common problems. Panel discussion.
SO - J Ambul Care Mark. 1989;3(1):43-8.

3
TI - Strategic behavior of hospitals: a framework for analysis.
SO - Med Care Rev. 1989 Fall;46(3):295-311.

4
TI - The chef's secret. Colorful creativity.
SO - Food Manage. 1989 Oct;24(10):194-8, 200.

SS 16 /C?
USER:
11 or 14

PROG:
SS (16) PSTG (492)

```

Figure 3 - Main Heading Search

In the Hospital Literature Index, relevant citations on entrepreneurship may be searched most efficiently by scanning titles for variations of the term under:

ECONOMIC COMPETITION,  
ORGANIZATIONAL INNOVATION, and  
HOSPITAL RESTRUCTURING.

For example, examination of the citations listed in the cumulative annual Hospital Literature Index, 1989, volume 45, under one of these subject headings provides the following relevant citations:

**ORGANIZATIONAL INNOVATION**

Fostering intrapreneurship: the new competitive edge. Rule EG, et al. J Bus Strategy 1988 May-Jun;9(3):44-7

Innovators and entrepreneurs: 1989. Hospitals 1989 May 20; 63(10):40-9, 52, 54

Growth of entrepreneurial endeavors in the health care industry. Campbell BC. Top Health Rec Manage 1989 Jun;9(4):29-35

Although citations found by this method will be on target, consideration should also be given to scanning titles selectively under the same subject headings for variations of 'commerce', 'business', 'creativity', 'innovation', and 'enterprise' for possible relevant articles. In addition, for articles on the role of health

care administrators in entrepreneurship, it is worth searching the following subject headings in the Index:

ADMINISTRATIVE PERSONNEL  
HOSPITAL ADMINISTRATORS  
MEDICAL DIRECTORS  
MEDICAL RECORD ADMINISTRATORS  
NURSE ADMINISTRATORS

For example, from the same cumulative Index:

**MEDICAL RECORD ADMINISTRATORS**

THRM forum: medical record entrepreneurs--the growth segments of the 1990s. Chenoweth J. Top Health Rec Manage 1989 Jun;9(4):76-8

The AHA Resource Center suggested entrepreneurship as a Medical Subject Heading for 1990. It has been carried over for consideration in 1991.

(1) Webster's Ninth New Collegiate Dictionary. Springfield, MA: Merriam-Webster, Inc., 1984:416.

(2) Dwore, R.B., and Murray, B.P. Hospital administrators in a market environment: the case of Utah. Hospital & Health Services Administration. 1987 Nov;32(4):493-508.

(3) List of Serials Indexed for Online Users, 1990. Springfield, VA: National Technical Information Service, 1990:92, 93.

# CONSENSUS DEVELOPMENT CONFERENCES, NIH

Due to requests from the scientific community, changes have been made to the scope and indexing for a new 1990 MeSH heading, **CONSENSUS DEVELOPMENT CONFERENCES, NIH**. The combination of a broader definition and retrospective indexing of articles incorporating this concept has led to the easy identification of NIH consensus conferences published by the NIH Office of Medical Applications of Research (OMAR).

First, you will want to note in your 1990 Annotated MeSH on p. I-22 and on p. 195 the following changes (changed or new text is in bold type) in the scope note, annotation, and online note for the term **CONSENSUS DEVELOPMENT CONFERENCES, NIH**:

MeSH Scope Note (MS) on p. I-22 only:

Conferences sponsored by NIH presenting summary statements representing the majority agreement of physicians, scientists, and other professionals convening for the purpose of reaching a consensus on a subject of interest. **This heading is used for NIH consensus conferences as a means of scientific communication, as a type of review article, and as a tag for any article appearing in any publication of the NIH Office of Medical Applications of Research (OMAR).**

Annotation (AN) on p. I-22 and p. 195:

no qualif; IM for NIH conf as a means of scientific communication; NIM when indexed as a type of review article & fill in REVIEW in Field 17; add **NIM for any article in any publication of the NIH Office of Medical Applications of Research (OMAR); Manual section 12 & TN L; include name of NIH conf as part of title when it appears in author position, in footnote or at end of article; add UNITED STATES (NIM)**

Online Note (OL) on p. I-22 and p. 195:

**use CONSENSUS DEVELOPMENT CONFERENCES, NIH to search for conferences reported in OMAR publications 1977 - present; use CONSENSUS DEVELOPMENT CONFERENCES to search NIH CONSENSUS DEVELOPMENT reported in non-OMAR publications 1988-89; use NATIONAL INSTITUTES OF HEALTH (U.S.) for conferences reported in non-OMAR publications 1982-87**

When a new term is added to MeSH, it is usually added only to new article citations whereas the older citations retain their previous indexing. However, the concept of **CONSENSUS DEVELOPMENT CONFERENCES, NIH** was considered to be of such vital importance that MEDLINE and the backfiles have been searched for NIH consensus conferences published by OMAR between 1977 -1989. These conference citations were isolated and given the new 1990 MeSH heading **CONSENSUS DEVELOPMENT CONFERENCES, NIH**. The new term was simply added to the records; the original indexing remains intact so that the older search strategies are still useable.

Currently, this new term will be added to any NIH consensus conference whether or not it was published by OMAR. Therefore, from 1990 forward it will be possible to retrieve OMAR publications using this heading, but the retrieval will also include NIH consensus conferences published by other sources.

The following Multifile search (Figures 1A - 1F) illustrates the advantages of the new indexing for retrospective retrieval of OMAR reports:



YOU ARE NOW CONNECTED TO THE MEDLINE (1988 - 90) FILE.

SS 1 /C?

USER:

mfs mode=auto

PROG:

SEARCH TO BE RUN ALREADY EXISTS. DO YOU WISH TO REPLACE IT? (Y/N)

USER:

y

PROG:

MULTIFILE SESSION ABOUT TO BEGIN

MODE: AUTO

SEARCHNAME: &-MFS-& (TO BE INPUT)

FILES TO BE SEARCHED:

** MEDLINE	(1988 - 90)
** BACK86	(1986 - 87)
** BACK83	(1983 - 85)
** BACK80	(1980 - 82)
** BACK77	(1977 - 79)
** BACK72	(1972 - 76)
** BACK66	(1966 - 71)

OK? (Y/N/C/LIST)

USER:

y

PROG:

ENTER SEARCH-

\*STS\* SS 1 /C?

USER:

consensus development conferences, nih

PROG:

SS (1) PSTG (18)

These 18 citations are NIH consensus reports published either in OMAR or in other sources.

\*STS\* SS 2 /C?

USER:

finished

Figure 1A

PROG:  
 SEARCH SET FROM SS 1 FORWARD SAVED AS '&-MFS-&'.  
 YOU ARE NOW CONNECTED TO THE BACK86 (1986 - 87) FILE.  
 SS (2) PSTG (14)  
 YOU ARE NOW CONNECTED TO THE BACK83 (1983 - 85) FILE.  
 SS (3) PSTG (19)  
 YOU ARE NOW CONNECTED TO THE BACK80 (1980 - 82) FILE.  
 SS (4) PSTG (12)  
 YOU ARE NOW CONNECTED TO THE BACK77 (1977 - 79) FILE.  
 SS (5) PSTG (21)  
 YOU ARE NOW CONNECTED TO THE BACK72 (1972 - 76) FILE.  
 \*NONE-  
 YOU ARE NOW CONNECTED TO THE BACK66 (1966 - 71) FILE.  
 \*NONE-

By the revised  
 MeSH definition  
 these citations are  
 all NIH consensus  
 reports published  
 by OMAR only.

READY TO PRINT FROM SEARCH 1, CONTAINING 18 ITEM(S) FROM MEDLINE.

ENTER SPECIFICATIONS FOR PRINTING (E.G., BR, SD, FU, DL), OR 'SAME' (DO NOT  
 USE THE WORDS 'PRINT' OR 'PRT'):

USER:  
 sd

PROG:

1 (MEDLINE)  
 UI - 89057000  
 TI - Cochlear implants.  
 RF - REVIEW ARTICLE: 0 REFS.  
 SO - Natl Inst Health Consensus Dev Conf Consensus Statement 1988 May  
 4;7(2):1-9

2 (MEDLINE)  
 UI - 90164365  
 TI - NIH releases report on treatment of severe destructive behaviors.  
 RF - REVIEW ARTICLE: 0 REFS.  
 SO - Am Fam Physician 1990 Mar;41(3):1001-3

3 (MEDLINE)  
 UI - 90119399  
 TI - NIH releases consensus development statement on urinary incontinence.  
 SO - Am Fam Physician 1989 Jun;39(6):324-6

4 (MEDLINE)  
 UI - 90109203  
 TI - NIH Consensus Development Conference: Dental Implants. June  
 13-15, 1988. Bethesda, Maryland.  
 RF - REVIEW ARTICLE: 0 REFS.  
 SO - Implantologist 1988;5(2):13-54, 69-71 .

.  
 .  
 .

CONTINUE PRINTING? (YES/NO)

USER:  
 n

Figure 1B

PROG:

READY TO PRINT FROM SEARCH 2, CONTAINING 14 ITEM(S) FROM BACK86.

REPRINT PRIOR SEARCH RESULTS? (Y/N/C/SKIP PLUS OPTIONAL WORD(S) 'PRINTSPECS'  
AND/OR 'RECORDS' TO REQUEST PROMPTS FOR THESE CHANGES):

USER:

c

PROG:

SUPERPRINT COMMAND HAS BEEN CANCELLED.

SS 6 /C?

USER:

ers11

PROG:

SS 1 /C?

USER:

file med

PROG:

YOU ARE NOW CONNECTED TO THE MEDLINE (1988 - 90) FILE.

SS 1 /C?

USER:

consensus development conferences

To retrieve all NIH consensus development conferences regardless of the publication source, use the following strategy for 1988-89.

Reminder: this will also retrieve the OMAR records because when NLM added the new 1990 heading, we left the original indexing on the record as well.

PROG:

SS (1) PSTG (186)

SS 2 /C?

USER:

national institutes of health (u.s.)

PROG:

SS (2) PSTG (600)

SS 3 /C?

USER:

1 and 2

PROG:

SS (3) PSTG (55)

SS 4 /C?

USER:

prt 1-3

Figure 1C

```

PROG:

1
UI - 90168307
TI - Treatment of destructive behaviors in persons with developmental
    disabilities. National Institutes of Health.
RF - REVIEW ARTICLE: 0 REFS.
SO - Conn Med 1990 Feb;54(2):65-74

2
UI - 89057000
TI - Cochlear implants.
RF - REVIEW ARTICLE: 0 REFS.
SO - Natl Inst Health Consensus Dev Conf Consensus Statement 1988 May
    4;7(2):1-9

3
UI - 90148749
TI - NIH Consensus Development Conference: Dental Implants. June 13-15,
    1988. National Institutes of Health, Bethesda, MD.
RF - REVIEW ARTICLE: 0 REFS.
SO - Int J Oral Implantol 1988;5(1):7-83

SS 4 /C?
ersll

PROG:

SS 1 /C?
USER:
mfs b86,b83,b80 mode=auto

PROG:
SEARCH TO BE RUN ALREADY EXISTS. DO YOU WISH TO REPLACE IT? (Y/N)

USER:
y
                                     Prior to 1988, yet another
                                     strategy is needed to
                                     retrieve NIH consensus
                                     reports. During this time,
                                     the MeSH heading used was
                                     NATIONAL INSTITUTES OF
                                     HEALTH (U.S.). Because the
                                     retrieval on this heading
                                     alone is large, use Text
                                     Words (TW) to narrow the
                                     search.

PROG:
MULTIFILE SESSION ABOUT TO BEGIN

MODE: AUTO
SEARCHNAME: &-MFS-& (TO BE INPUT)
FILES TO BE SEARCHED:
** BACK86                (1986 - 87)
** BACK83                (1983 - 85)
** BACK80                (1980 - 82)
OK? (Y/N/C/LIST)

USER:
y
    
```

Figure 1D

```

PROG:
ENTER SEARCH-
YOU ARE NOW CONNECTED TO THE BACK86 (1986 - 87) FILE.

*STS* SS 1 /C?
USER:
national institutes of health (u.s.)

PROG:
SS (1) PSTG (449)

*STS* SS 2 /C?
USER:
(tw) consensus

PROG:
SS (2) PSTG (1058)

*STS* SS 3 /C?
USER:
1 and 2

PROG:
SS (3) PSTG (49)

*STS* SS 4 /C?
USER:
finished

PROG:
SEARCH SET FROM SS 1 FORWARD SAVED AS '&-MFS-&'.
YOU ARE NOW CONNECTED TO THE BACK83 (1983 - 85) FILE.
SS (2) PSTG (96)
YOU ARE NOW CONNECTED TO THE BACK80 (1980 - 82) FILE.
SS (3) PSTG (78)

READY TO PRINT FROM SEARCH 1, CONTAINING 49 ITEM(S) FROM BACK86.

ENTER SPECIFICATIONS FOR PRINTING (E.G., BR, SD, FU, DL), OR 'SAME' (DO NOT
USE THE WORDS 'PRINT' OR 'PRT'):

USER:
sd

PROG:

1 (BACK86)
UI - 89009255
AU - Copp LA
TI - Consensus: pain management ineffective.
RF - REVIEW ARTICLE: 7 REFS.
SO - J Prof Nurs 1986 Sep-Oct;2(5):272, 333

```

Figure 1E

2 (BACK86)  
UI - 88036369  
AU - Kosecoff J  
AU - Kanouse DE  
AU - Rogers WH  
AU - McCloskey L  
AU - Winslow CM  
AU - Brook RH  
TI - Effects of the National Institutes of Health Consensus Development  
Program on physician practice.  
SO - JAMA 1987 Nov 20;258(19):2708-13

3 (BACK86)  
UI - 88065581  
TI - Diet and exercise in noninsulin-dependent diabetes mellitus. National  
Institutes of Health Consensus Development Conference Statement.  
RF - REVIEW ARTICLE: 0 REFS.  
SO - Natl Inst Health Consensus Dev Conf Consensus Statement 1986 Dec  
10;6(8):1-7

CONTINUE PRINTING? (YES/NO)

USER:

n

PROG: READY TO PRINT FROM SEARCH 2, CONTAINING 96 ITEM(S) FROM BACK83.

REPRINT PRIOR SEARCH RESULTS? (Y/N/C/SKIP PLUS OPTIONAL WORD(S)  
'PRINTSPECS'

AND/OR 'RECORDS' TO REQUEST PROMPTS FOR THESE CHANGES):

USER:

c

PROG:

SUPERPRINT COMMAND HAS BEEN CANCELLED.

Figure 1F

# Serials Update

## INDEXED TITLES UPDATE, APRIL 1990

The following titles cited in MEDLINE, HEALTH, and POPLINE have recently been selected for indexing, undergone a title change, or ceased publication. This list is not cumulative; the information provided is only for titles whose status has changed since the last UPDATE.

More detailed information may be found in SERLINE. For further information, please contact MMS or Ms. Esther Baldinger, (301) 496-1276, Technical Services Division, NLM.

### TITLES SELECTED FOR INDEXING, MARCH 1990

IDL AVANCES EN PERIODONCIA  
 AV PERIODONCIA  
 IN1,MAY 1989--  
 AVANCES EN ODONTOESTOMATOLOGIA, S.A.  
 MADRID SPAIN  
 SERIAL CATALOGING IN PROCESS. CALL NO.  
 ASSIGNED FOR SHELVING.  
 INDEXING BEGAN WITH VIN1,MAY 1989  
 W1 AV217H  
 SR0066335 JC: ARG

IDL ORAL-PROPHYLAXE  
 ORALPROPHYLAXE  
 IN1,1979?--  
 DEUTSCHER ARZTE VERLAG  
 FRANKFURT GERMANY, WEST  
 INDEXING BEGAN WITH V10N1,1988.  
 W1 OR109 0724-4991  
 009290000 JC: AP7

HLI CALIFORNIA HOSPITALS  
 CALIF HOSP  
 IN1,NOV-DEC 1986--  
 CALIFORNIA ASSOCIATION OF HOSPITALS AND  
 HEALTH SYSTEMS  
 SACRAMENTO CA UNITED STATES  
 INDEXING BEGAN WITH V4N1,JAN-FEB 1990.  
 ON ORDER 0896-2766  
 SR0061883 JC: AQ8  
 CAHHS,P.O.BOX 1100,SACRAMENTO CA  
 95812-1100

INI ROGERIAN NURSING SCIENCE NEWS  
 ROGERIAN NURS SCI NEWS  
 IN1,JUN 1988--  
 SOCIETY OF ROGERIAN SCHOLARS  
 NEW YORK NY UNITED STATES  
 INDEXING BEGAN WITH VIN1,JUN 1988  
 ON ORDER  
 SR0067753 JC: AP8  
 SOCIETY OF ROGERIAN SCHOLARS,P.O. BOX  
 362,PRINCE STREET STATION,NEW YORK NY  
 10012

IDL JOURNAL OF ESTHETIC DENTISTRY  
 J ESTHET DENT  
 1,JAN 1989--  
 B.C. DECKER  
 PHILADEPHIA PA UNITED STATES  
 INDEXING BEGAN WITH VIN1,JAN 1989.  
 ON ORDER 1040-1466  
 SR0067713 JC: AP6

IDL TANNLAEKNABLADID  
 TANNLAEKNABLADID  
 V1,1983?--  
 ICELANDIC DENTAL ASSOCIATION  
 REYKJAVIK ICELAND  
 INDEXING BEGAN WITH V7N1, 1989.  
 ON ORDER  
 SR0067905 JC: ARA

IM NIH GUIDE FOR GRANTS AND CONTRACTS  
 NIH GUIDE GRANTS CONTRACTS  
 IN1,APR 1970--  
 U.S. DEPARTMENT OF HEALTH AND HUMAN  
 SERVICES, NATIONAL INSTITUTES OF HEALTH,  
 DIVISION OF RESEARCH GRANTS  
 BETHESDA MD UNITED STATES  
 HAS SUPPLEMENT: NIH GUIDE FOR GRANTS AND  
 CONTRACTS. SUPPLEMENT. NLM COLLECTS FROM  
 VOL.19,1990.  
 INDEXING FOR INDEX MEDICUS BEGAN WITH  
 V19N1,JAN 1990.  
 W 20.5 N691  
 H23050000 JC: AQF  
 NIH GUIDE,PRINTING AND REPRODUCTION  
 BRANCH,NATIONAL INSTITUTES OF  
 HEALTH,ROOM B4BN08 BLDG. 31,BETHESDA MD  
 20892

TITLES FORMERLY INDEXED UNDER PARENT TITLE BUT  
ARE NOW SEPARATE TITLES WITH THEIR OWN JOURNAL  
TITLE CODES AND TITLE CONTROL NUMBERS, MARCH 1990

<p>IM JOURNAL OF EXPERIMENTAL ZOOLOGY. SUPPLEMENT J EXP ZOOLOG SUPPL 1,1987-- ALAN R. LISS NEW YORK NY INDEXING BEGAN WITH V1,1987. IN PROCESS SR0067810</p>	<p>UNITED STATES JC: AQU</p>	<p>IM RHINOLOGY. SUPPLEMENT RHINOL SUPPL 1,1988-- INTERNATIONAL RHINOLOGIC SOCIETY UTRECHT NETHERLANDS SUPPLEMENT TO: RHINOLOGY. SOME NOS. PUBLISHED OUT OF CHRONOLOGICAL ORDER: NO. 2 PUBLISHED 1987. INDEXING BEGAN WITH V1,1988. W1 RH43A SR0067806</p>	<p>JC: AGB</p>
--	----------------------------------	--	----------------

TITLE CHANGES, MARCH 1990

<p>IM GENETIC ANALYSIS GENET ANAL 7N1,FEB 1990-- ELSEVIER NEW YORK NY CONTINUES: GENE ANALYSIS TECHNIQUES. W1 GE277 SR0067709</p>	<p>UNITED STATES 0735-0651 JC: AP4</p>	<p>HLI HR MAGAZINE HR MAG 35N1,JAN 1990-- SOCIETY FOR HUMAN RESOURCE MANAGEMENT ALEXANDRIA VA UNITED STATES CONTINUES: PERSONNEL ADMINISTRATOR. ON ORDER 1047-3149 SR0067915 JC: ARH</p>
<p>IM GRUDNAIA I SERDECHNO-SOSUDISTAIA KHIRURGIIA GRUD SERDECHNOSOSUDISTAIA KHIR N1,1990-- MEDITSINA MOSKVA CONTINUES: GRUDNAIA KHIRURGIIA. W1 GR919CK SR0067826</p>	<p>USSR 0017-4866 JC: AQO</p>	<p>IM HUMAN AND EXPERIMENTAL TOXICOLOGY HUM EXP TOXICOL 9N1,JAN 1990-- MACMILLAN PRESS HOUNDMILLS ENGLAND CONTINUES: HUMAN TOXICOLOGY. W1 HU44N 0144-5952 SR0067843 JC: AQL</p>
<p>HLI HEALTH ESTATE JOURNAL HEALTH ESTATE J 44N1,FEB 1990-- INSTITUTE OF HOSPITAL ENGINEERING PORTSMOUTH ENGLAND CONTINUES: JOURNAL OF THE INSTITUTE OF HOSPITAL ENGINEERING. W1 HE329H 0957-7742 SR0067729 JC: AP9</p>	<p>0957-7742 JC: AP9</p>	<p>IM JOURNAL OF EXPERIMENTAL PATHOLOGY J EXP PATHOL 71N1,FEB 1990-- BLACKWELL OXFORD ENGLAND CONTINUES: BRITISH JOURNAL OF EXPERIMENTAL PATHOLOGY. W1 JO544RE 0958-4625 SR0067804 JC: AQA</p>
<p>HLI HEALTHCARE INFORMATICS HEALTHC INFORM 7N2,FEB 1990-- HEALTH DATA ANALYSIS LAKEWOOD CO CONTINUES: U.S. HEALTHCARE. W1 HE608RD 1040-3973 SR0067626 JC: A08</p>	<p>UNITED STATES 1040-3973 JC: A08</p>	<p>IM JOURNAL OF PUBLIC HEALTH MEDICINE J PUBLIC HEALTH MED 1990-- OXFORD UNIVERSITY PRESS OXFORD ENGLAND CONTINUES: COMMUNITY MEDICINE. ON ORDER 0957-4832 SR0067512 JC: AP2</p>



TITLES NO LONGER INDEXED AS OF MARCH 1990

<p>IM ACTA ENDOCRINOLOGICA. SUPPLEMENTUM ACTA ENDOCRINOL SUPPL (COPENH) 1,1948-289,1988 PERIODICA COPENHAGEN DENMARK INDEXING BEGAN WITH 139,1969. W1 AC7981 0300-9750 A05295000 JC: ONF</p>	<p>HLI ECONOMIC INQUIRY ECON INQ 12,1974-- WESTERN ECONOMIC ASSOCIATION, CALIFORNIA STATE UNIVERSITY LONG BEACH CA UNITED STATES CONTINUES WESTERN ECONOMIC JOURNAL. THIS TITLE IS NOT IN THE NLM COLLECTION. INDEXING CEASED WITH V27N4,OCT 1989. AHA 0095-2583 E01260000 JC: EEF</p>
<p>HLI AMERICAN JOURNAL OF PHARMACEUTICAL EDUCATION AM J PHARM EDUC 1,1937-- AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY LINCOLN NE UNITED STATES INDEXING BEGAN WITH V40N1,FEB 1976 AND CEASED WITH V53N4,WINTER 1989. W1 AM498C 0002-9459 A24645000 JC: 3R9</p>	<p>HLI EVALUATION AND PROGRAM PLANNING EVAL PROGRAM PLANN 1,1978-- PERGAMON PRESS ELMSFORD NY UNITED STATES INDEXING BEGAN WITH VIN1, JAN 1978 AND CEASED WITH V12N4,NOV 1989. W1 EV13G 0149-7189 E17400000 JC: EOB</p>
<p>HLI AUSTRALIAN HOSPITAL AUST HOSP N1,1976-- PETER ISAACSON PUBLICATION PRAHRAN AUSTRALIA SUPERSEDES NATIONAL HOSPITAL AND HEALTH CARE. OFFICIAL NEWSPAPER OF THE AUSTRALIAN INSTITUTE OF HOSPITAL ADMINISTRATORS AND THE AUSTRALIAN HOSPITAL ASSOCIATION INDEXING CEASED WITH N150,DEC 1989. W1 AU533C 0147-0147 A75315000 JC: 9GD</p>	<p>HLI FAMILY AND COMMUNITY HEALTH FAM COMMUNITY HEALTH 1N1,APR 1978-- ASPEN SYSTEMS CORPORATION GERMANTOWN MD UNITED STATES INDEXING BEGAN WITH VIN1, APR 1978 AND CEASED WITH V12N4,FEB 90. W1 FA432BK 0160-6379 F00520000 JC: ESE</p>
<p>HLI CANADAS MENTAL HEALTH CAN MENT HEALTH 1,1953-- CANADA. DEPARTMENT OF NATIONAL HEALTH AND WELFARE OTTAWA CANADA INDEXING BEGAN WITH V23N1, MAR 1975 AND CEASED WITH V37N4,DECEMBER 1989. W1 CA492 0008-2791 C03320000 JC: C8R</p>	<p>IM GAMETE RESEARCH GAMETE RES 1,1978-24,1989 LISS NEW YORK UNITED STATES 8 ISSUES PER YEAR, V.1-12 (1978-85); MONTHLY, V.13 (1986)- . ABSORBED BY: MOLECULAR REPRODUCTION AND DEVELOPMENT. INDEXING BEGAN WITH V16N1,1987. W1 GA404HR 0148-7280 G01160000 JC: GAM</p>
<p>HLI CARE GIVER CARE GIVER 1N1,JUL 1984-- AMERICAN PROTESTANT HEALTH ASSOCIATION SCHAUMBURG IL UNITED STATES OFFICIAL JOURNAL OF THE COLLEGE OF CHAPLAINS OF THE AMERICAN PROTESTANT HEALTH ASSOCIATION. THIS TITLE IS NOT IN THE NLM COLLECTION. CONTINUES: BULLETIN / AMERICAN PROTESTANT HOSPITAL ASSOCIATION. INDEXING BEGAN WITH VIN1,JUL 1984 AND CEASED WITH V5,SEP 1988. AHA SR0055909 JC: CPG</p>	<p>HLI HEALTH CARE HEALTH CARE (DON MILLS) 21N8,AUG 1979-- SOUTHAM BUSINESS PUBLICATIONS DON MILLS, ONTARIO CANADA CONTINUES HEALTH CARE IN CANADA. ALTERNATE ISSUES INCLUDE: HEALTH CARE DIGEST, VOL. 6 NO. 4- . INCLUDES SEMIANNUAL ISSUES OF LONG TERM CARE, VOL. 27 NO. 2,1985-VOL.28 NO.2,1986, WHICH ARE CATALOGED AND SHELVED SEPARATELY AT NLM. INDEXING CEASED WITH V31N9,NOV-DEC 1989. W1 HE298N 0226-5788 H03940000 JC: GKM</p>
<p>HLI CHOICES IN RESPIRATORY MANAGEMENT CHOICES RESPIR MANAGE 19N1,1989-- CPG HOBOKEN NJ UNITED STATES RUNNING TITLE: RESPIRATORY MANAGEMENT. CONTINUES: RESPIRATORY MANAGEMENT. INDEXING CEASED WITH V19N6,NOV-DEC 1989. W1 CH883M 1044-0690 SR0065644 JC: ABZ</p>	

**NLM TECHNICAL BULLETIN APR 90**

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|---|---|
| <p>HLI JOURNAL / INSTITUTE OF STERILE SERVICES<br/>MANAGEMENT<br/>J INST STERILE SERV MANAGE<br/>1N1,OCT 1988?--<br/>INSTITUTE OF STERILE SERVICES MANAGEMENT<br/>NOTTINGHAM ENGLAND<br/>CALLED ALSO: JOURNAL OF STERILE SERVICES<br/>MANAGEMENT, FEB. 1989?- . CONTINUES:<br/>JOURNAL OF STERILE SERVICES MANAGEMENT,<br/>WHICH IS NOT IN THE NLM COLLECTION. VOL.1<br/>IS COMPLETE IN 2 ISSUES.<br/>INDEXING CEASED WITH V1N6,AUG 1989.<br/>W1 J0478M 0951-2578<br/>SR0065127 JC: JH5</p> | <p>HLI PUBLIC WELFARE<br/>PUBLIC WELF<br/>1,1943--<br/>AMERICAN PUBLIC WELFARE ASSOCIATION<br/>CHICAGO IL UNITED STATES<br/>SUPERSEDES PUBLIC WELFARE NEWS<br/>INDEXING BEGAN WITH V36N1,WINTER 1978 AND<br/>CEASED WITH V47N4,FALL 1989.<br/>W1 PU64 0033-3816<br/>P58040000 JC: QJD</p>   |
| <p>IDL MONDO ODONTOSTOMATOLOGICO<br/>MONDO ODONTOSTOMATOL<br/>1,1959-29,1987<br/>BOLOGNA ITALY<br/>INDEXING FOR ONLINE FILES BEGAN WITH<br/>V7N4,JUL-AUG 1965.<br/>W1 M0395 0026-9565<br/>M44300000 JC: NHA</p>   | <p>HLI SOCIAL CASEWORK<br/>SOC CASEWORK<br/>31,1950-70,1989<br/>FAMILY SERVICE ASSOCIATION OF AMERICA<br/>NEW YORK UNITED STATES<br/>CONTINUES JOURNAL OF SOCIAL CASEWORK.<br/>CONTINUED BY: FAMILIES IN SOCIETY.<br/>W1 S0104L 0037-7678<br/>S28180000 JC: UT2</p>   |
| <p>HLI PATIENT CARE<br/>PATIENT CARE<br/>1N1,JAN 1967--<br/>MILLER AND FINK CORPORATION<br/>DARIEN CT UNITED STATES<br/>VOL 17 COMPLETE IN 21 ISSUES.<br/>INDEXING BEGAN WITH V12N1,JAN 15, 1978 AND<br/>CEASED WITH V23N20,DEC 15, 1989.<br/>W1 PA963N 0031-305X<br/>P05180000 JC: PAK</p>   | <p>HLI SOUTHERN HOSPITALS<br/>SOUTH HOSP<br/>3,1935-56N6,1989<br/>CLARK SMITH PUBLISHING CO<br/>CHARLOTTE NC UNITED STATES<br/>ISSUED JAN-FEB 1935 WITH TITLE: THE<br/>CAROLINA HOSPITAL; . 1935-SEPT.? 1942 WITH<br/>TITLE: SOUTHERN HOSPITAL. NO VOLUME<br/>NUMBERING ON NOV/DEC 1984 ISSUE.<br/>INDEXING BEGAN WITH V45N6, NOV-DEC 1977.<br/>W1 S0953E 0038-4178<br/>S32620000 JC: VAB</p> |
| <p>HLI PATIENT EDUCATION AND COUNSELING<br/>PATIENT EDUC COUNS<br/>5N1,1983--<br/>ELSEVIER<br/>LIMERICK IRELAND<br/>CONTINUES: PATIENT COUNSELING AND HEALTH<br/>EDUCATION. ABSORBED: PATIENT EDUCATION<br/>NEWSLETTER, 1986.<br/>INDEXING CEASED WITH V14N3,DEC 1989.<br/>W1 PA9632E 0738-3991<br/>P05225000 JC: PEC</p>   | <p>HLI TECHNOLOGY REVIEW<br/>TECHNOL REV<br/>1,1899--<br/>TECHNOLOGY REVIEW<br/>CAMBRIDGE MA UNITED STATES<br/>INDEXING BEGAN WITH V81N2, NOV 1978 AND<br/>CEASED WITH V92N8,NOV-DEC 1989.<br/>W1 TE211M 0040-1692<br/>T04520000 JC: VKT</p>  |
| <p>HLI PERSONNEL<br/>PERSONNEL<br/>1,1919--<br/>AMERICAN MANAGEMENT ASSOCIATIONS<br/>SARANAC LAKE NY UNITED STATES<br/>PUBLISHED BM BEFORE 1985.<br/>INDEXING BEGAN WITH V54N6, NOV-DEC 1977 AND<br/>CEASED WITH V66N12,DEC 1989.<br/>W1 PE867 0031-5702<br/>P08580000 JC: PAP</p>  |   |
| <p>HLI PUBLIC RELATIONS JOURNAL<br/>PUBLIC RELAT J<br/>1,1945--<br/>PUBLIC RELATIONS SOCIETY OF AMERICA<br/>NEW YORK UNITED STATES<br/>THIS TITLE IS NOT IN THE NLM COLLECTION.<br/>INDEXING BEGAN WITH V34N3, MAR 1978 AND<br/>CEASED WITH V45N12,DEC 1989.<br/>AHA 0033-3670<br/>P57940000 JC: QH5</p>  |   |

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# Technical Bulletin

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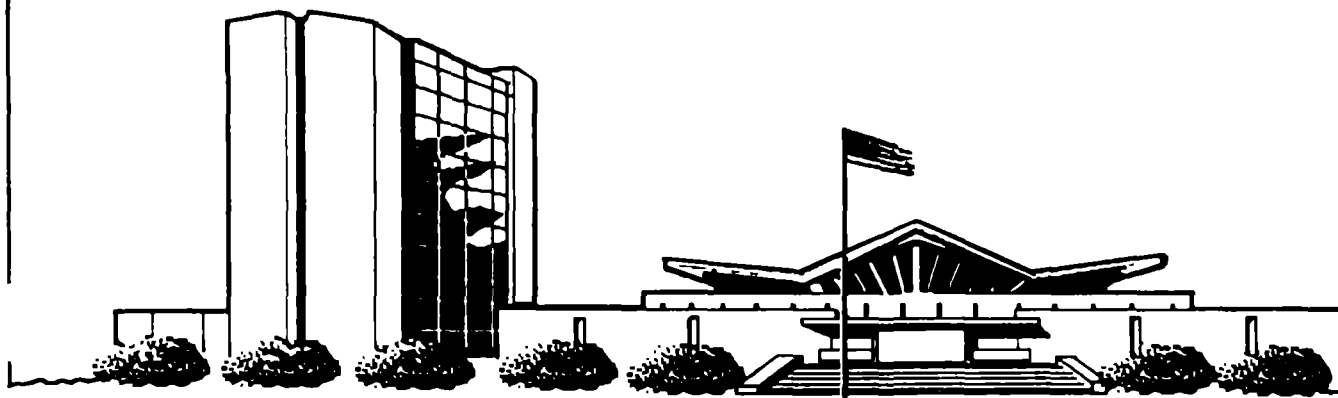
## IRIS: File Structure and Searching

Philip Wexler  
Toxicology Information Program, NLM

IRIS (Integrated Risk Information System) is a new online file containing EPA (Environmental Protection Agency) health risk assessment and regulatory data. This file became publicly available on the TOXNET® system on March 5, 1990. An overview of the risk assessment process and the scientific content of IRIS was presented in the January 1990 *Technical Bulletin*. This article concentrates on the file structure and searching of IRIS.

IRIS is organized by chemical and contains one record for each unique chemical. The four-tier hierarchical structure [category-header-field-data tab (or subfield)] of the IRIS Unit Record (Figure 1) should be familiar to TOXNET users. There are 8 major subject categories plus a category for administrative information. As usual, these categories, as well as all the headers and data fields, are fully searchable and printable.

Continued on page 7



MEDLARS <sup>®</sup> DATABASE	TOTAL RECORDS	DATES COVERED	DATE LAST UPDATED	LATEST UPDATE TAG
<b>ELHILL<sup>®</sup> COMPUTER</b>				
AIDSDRUGS	83		18 APR 90	
AIDSLINE** <sup>™</sup>	30,443	JAN 80-JUN 90	14 APR 90	9006 (EM)
AIDSTRIALS	235		18 APR 90	
AVLINE <sup>®</sup>	20,483	THROUGH 1990	20 APR 90	
BIOETHICS <sup>®</sup>	29,652	JAN 73-APR 90	13 APR 90	9004 (EM)
CANCERLIT <sup>®</sup>	723,069	JAN 63-APR 90	07 APR 90	9004 (EM)
CATLINE <sup>®</sup>	660,473	THROUGH 1990	20 APR 90	
CHEMID <sup>®</sup>	182,003		27 FEB 90	
CHEMLINE <sup>®</sup>	907,805		10 FEB 89	9002 (EM)
CLINPROT <sup>®</sup>	7,701		21 APR 90	9004 (EM)
DENTALPROJ	784		28 FEB 90	
DIRLINE <sup>®</sup>	17,046		28 FEB 90	
DOCUSER <sup>®</sup>	11,853		31 MAR 90	
HEALTH	497,274	JAN 75-MAY 90	07 APR 90	9005 (EM)
HISTLINE <sup>®</sup>	93,555		07 APR 90	9004 (EM)
MEDLINE* <sup>®</sup>	717,511	JAN 88-JUN 90	14 APR 90	9006 (EM)
MED86	651,870	JAN 86-DEC 87	31 MAR 90	
MED83	890,574	JAN 83-DEC 85	17 FEB 90	
MED80	803,401	JAN 80-DEC 82	09 DEC 89	
MED77	775,781	JAN 77-DEC 79	09 DEC 89	
MED72	1,175,567	JAN 72-DEC 76	07 APR 90	
MED66	1,310,491	JAN 66-DEC 71	21 APR 90	
MESH VOC <sup>®</sup>	71,983	1990	21 APR 90	
NAME AUTH <sup>®</sup>	344,461		14 APR 90	
PDQ <sup>®</sup>		THRU APR 90	02 APR 90	
POPLINE <sup>™</sup>	173,199	1970-APR 90	13 APR 90	9004 (EM)
SDILINE <sup>®</sup>	43,964	MAY 90	31 MAR 90	9005 (EM)
SERLINE <sup>®</sup>	74,343	1990	13 APR 90	
TOXLINE <sup>®</sup>	805,424	1981-1990	14 APR 90	9004 (EM)
TOXLINE65	707,374	PRE 1965-1980	31 MAR 90	
TOXLIT <sup>™</sup>	821,722	1981-1990	14 APR 90	9004 (EM)
TOXLIT65	586,405	1965-1980	01 SEP 87	

\*N.B. FILE IS UPDATED SEMIMONTHLY; THIS IS PART 1 OF 2.

\*\*N.B. FILE IS UPDATED THREE TIMES A MONTH; THIS IS PART 1 OF 3.

**TOXNET COMPUTER**

CCRIS	2,190		13 MAR 90
DBIR <sup>™</sup>	1,340		16 APR 90
EMICBACK	67,975		02 JUN 89
ETICBACK	46,374		30 JAN 89
HSDB <sup>®</sup>	4,209		16 APR 90
IRIS	398		02 APR 90
RTECS <sup>®</sup>	102,941		26 MAR 90
TRI	76,737		20 NOV 89

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## Technical Notes

Whenever applicable, the heading of each Technical Note includes a reference to the section of the Online Services Reference Manual, 1988, that is considered most relevant to the item being discussed, e.g., (Manual 4.7.2). Users should keep in mind that the item may pertain to other sections as well.

### NLM & PDQ ONLINE USERS' MEETINGS

The NLM Online Users' Meeting will be held on Tuesday, May 22 from 12:00 pm to 1:30 pm at the Annual Meeting of the Medical Library Association in the Cobo Convention Exposition Center in Detroit, Michigan. The meeting will be held in Room W1-56. Users will be updated on MEDLARS and DOCLINE developments. The PDQ User Group Meeting will be held on Tuesday, May 22 from 7:30 am - 10:00 am in the Cobo Convention Exposition Center, Room W1-56.

### MEDLARS USER ID CODE ON MAILING LABEL

Beginning with the February issue of the *Technical Bulletin*, you will notice that your MEDLARS User ID code is now printed on the top left-hand corner of your *Technical Bulletin* mailing label. The User ID code is printed on the label to assist in NLM internal change of address procedures. Inclusion of the MEDLARS User ID code will not cause unauthorized access because the MEDLARS password which provides security is not printed.

### NATIONAL CANCER INSTITUTE TRADEMARKS

The CANCERLIT, CANCERPROJ, and CLINPROT databases are now registered trademarks of the National Cancer Institute (NCI). The trademark registration for these databases was formerly assigned to NLM and has been transferred to the NCI who also has the registered trademark for PDQ. For more information contact:

International Cancer Research Data Bank Branch  
National Cancer Institute  
R.A. Bloch Building (82), Room 103  
Bethesda, MD 20892  
(301) 496-7403

### CANCERLIT CHANGES

In the past, a single-term MeSH Heading typed in while connected to CANCERLIT without the (MH) qualifier caused a multi-meaning message to display if the term also existed as a Journal Title Code (JC). For example:

```
SS 1 /C?
USER:
ear
PROG:
MM (EAR) (2)
    1 EAR (MH)
    2 EAR (JC)
SPECIFY NUMBERS, ALL, OR NONE-
```

```
USER:
1
PROG:
SS (1) PSTG (123)
```

This has been changed with the re-building of CANCERLIT for 1990. Now, an unqualified single term will not be searched as a JC. As the example below shows, EAR will be searched only as a MeSH Heading and no Multi-Meaning Message results.

```
SS 1 /C?
USER:
ear
PROG:
SS (1) PSTG (123)
```

```
SS 2 /C?
USER:
ear (mh)
PROG:
SS (2) PSTG (123)
```

### ChemID AVAILABLE ONLINE

ChemID, a new ""Chemical Identification database, became available on the MEDLARS ELHILL ® system on February 27, 1990. See the January and February 1990 issues of the *Technical Bulletin* for articles on this new database. ChemID is an online chemical dictionary/thesaurus which contains records for about 180,000 chemical substances which are cited by Registry Number (RN) in the following NLM databases: TOXLINE, TOXLINE65, TOXLIT, TOXLIT65, MEDLINE and its Backfiles, MESH, AIDSLINE, CANCERLIT, CCRIS, ETICBACK, HSDB, and

RTECS; as well as TSCAINV (the EPA Toxic Substances Control Act Inventory of Chemical Substances which is not an NLM online database). ChemID does not contain records for those substances that are cited only in TOXLIT or TOXLIT65. In addition, ChemID carries information for 20,000 substances in the RTECS database which do not have a Registry Number (RN). To obtain more information online, a user may type "EXPLAIN CHEMID" at any "USER:" prompt. ChemID is priced at the same rates as MEDLINE (approximately \$23.50 per prime time hour.)

#### MORE DATABASES WITH 1990 MESH

The DENTALPROJ file was updated with 1990 MeSH on March 1, 1990. DENTALPROJ now includes U. S. Department of Defense projects in addition to the National Institute of Dental Research (NIDR) projects. The newer projects do not have MeSH headings yet; so for complete retrieval use both Text Words (TW) and MeSH Headings (MH).

The AIDSLINE file became available for searching after being re-built with 1990 MeSH on January 31, 1990.

The DIRLINE database was updated at the end of February 1990 and contains over 17,000 records. It is now possible to search most records using Medical Subject Headings (MeSH). DIRLINE has been indexed using main headings only; subheadings are not available.

#### MOLECULAR SEQUENCE DATA

In support of NLM's biotechnology effort, NLM has been adding the SI (Secondary Source ID) field to the MEDLINE unit record when appropriate since 1988. The SI contains a linkage from a cited article to a molecular sequence databank where the actual molecular sequence has been deposited. The SI field includes the name of the molecular sequence databank such as GENBANK or HGML and the accession number assigned to the sequence if given. This information is added to the SI field during the indexing process only if it appears in the printed journal article. The following is the format used for the SI field:

Databank abbreviation/Accession number

For example:

SI - GENBANK/J00207

In addition, NLM retrospectively adds the SI field to MEDLINE citations back to 1966 once a year. This was first done in the summer of 1988 and then again during Year-End processing in 1989. In these cases, NLM receives machine-readable SI data from databank producers which is matched to the relevant MEDLINE Unique Identifiers (UI). This retrospective SI data is from either the Human Gene Mapping Library (HGML) or GENBANK. Therefore, the printed journal article may or may not have a specific molecular sequence databank listed in the article. The presence of an SI means that more information may always be found in the cited databank, but may not necessarily be found in the cited article. See the databank names and addresses in the July 1988 issue of the *Technical Bulletin* for referral purposes.

#### TA's FOR IDENTICAL JOURNAL TITLES

Recently, the question "How does NLM abbreviate identical journal titles?" was raised. As previously noted (see *Technical Bulletin* May and August 1988), NLM establishes title abbreviations according to the American National Standard for Information Sciences - Abbreviation of Titles of Publications (ANSI Z39.5-1985).

If a title is selected for indexing that has an abbreviation identical to another title already indexed, the abbreviation for the second title will be qualified according to ANSI 4.2.2. In most cases, this means that the abbreviation for the words in the title will be followed by the abbreviation for the city of publication enclosed in parentheses. However, if the first indexed title has the same city of publication (even though not indicated in its Title Abbreviation) then the subsequent TA is further qualified by the first year of publication, with both the city and date enclosed in parentheses, e.g., Dev Biol (N Y 1985). To search on journal title abbreviations with cities and other identifying data in parentheses, you should enter the entire title abbreviation including the parentheses followed by the "(TA)" qualifier. For example:

SS 1 /C?  
 USER:  
 Dev Biol (N Y 1985) (TA)  
 PROG:  
 SS (1) PSTG (22)



In this case, the TA for the first title selected for indexing is simply Dev Biol. It is NLM policy not to modify an existing TA because of the impact on database maintenance and searching. The first indexed title has an unqualified TA because it was unique when established.

#### NEW RTECS DATA ELEMENTS

The RTECS unit record now includes two additional data elements. Other Registry Number (ORN) is a multiply-occurring field which lists superseded CAS Registry Numbers previously used by RTECS. The NIOSH Exposure Survey (NEXP) data element is used for presenting data from NIOSH surveys. Initially, the National Occupational Exposure Survey (NOES) and National Occupational Hazard Survey (NOHS) will be reported in this field. RTECS records will display these new fields (if appropriate) as of the January 1990 NIOSH data processed for the TOXNET RTECS file.

#### TUMOR KEY SUPPLEMENT REVISED

The publication, Technical Notes: MEDLARS Indexing Instructions, Tumor Key Supplement, 1990 has been revised and is now available for purchase from the National Technical Information Service (NTIS). This publication is useful to identify how tumors are indexed according to MeSH. The order number is PB90-142167/GBB and the price is \$17.00 (\$34.00 non-U.S.); \$8.00 microfiche (\$16.00 non-U.S. microfiche). Add \$3.00 (\$4.00 non-U.S.) per order to cover shipping and handling charges. Orders should be sent to:

National Technical Information Service  
5285 Port Royal Road  
Springfield, VA 22161  
(703) 487-4650 (for telephone orders with credit card or NTIS deposit account)

#### CORRECTIONS TO THE 1990 MESH

1. Please make the following correction to the annotation for the subheading "genetics" on page 357 of the Annotated Alphabetic List - 1990. The annotation "for genetic aspects of disease use /familial & genetic" should be replaced by:

"for genetic aspects of disease use /genetics"

All occurrences of the old subheading, "familial & genetic" were replaced with "genetics" in MEDLINE and its Backfiles and other databases using MeSH when last year's 1989 MeSH became available.

2. The heading SINUSITIS on page 793 of the Annotated Alphabetic List - 1990 should have a plus sign (+) after each of its tree numbers. The numbers should be C.730.749+ and C9.659.752+. Please add the + sign to each tree number in your copy.

#### MEDLINE CIT STUDY AVAILABLE FROM NTIS

The National Library of Medicine recently completed a study of MEDLINE users to evaluate the impact of MEDLINE searches on clinical decision-making and other professional activities. The study utilized the Critical Incident Technique (CIT), a structured and systematic approach to obtaining detailed reports of behaviors leading to successful or unsuccessful outcomes. Telephone interviews were conducted with 545 physicians, biomedical researchers, and other health professionals, who described specific MEDLINE searches that were especially effective or ineffective in meeting a specific information need. Study results reveal that MEDLINE-derived information has had extremely important consequences for patients, the progress of biomedical research, the quality of medical education, and the safety and effectiveness of health care institutions. The results of this MEDLINE CIT study are published as a report titled Use of the Critical Incident Technique to Evaluate the Impact of MEDLINE. This report is available for purchase from the National Technical Information Service (NTIS). Ordering information follows:

#### Use of the Critical Incident Technique to Evaluate the Impact of MEDLINE.

Order number: PB90-142522/GBB

Hardcopy price: \$39 (\$78 non-U.S.)

Microfiche price: \$11 (\$22 non-U.S.)

There is a \$3.00 (U.S./Canada) shipping and handling charge required for each order (\$4.00 non-U.S.).

Order from:

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5285 Port Royal Road  
Springfield, VA 22161  
(703) 487-4650 (for telephone orders with credit card or NTIS deposit account)

### CLINPROT INDEX TERM LISTING

The CLINPROT Index Term listing for April 1990 is now available. It may be requested by writing to the National Cancer Institute. Please include a self-addressed label with your request. No return postage is necessary. Please send requests to:

International Cancer Research Data Bank Branch  
National Cancer Institute  
R.A. Bloch Building (82), Room 103  
Bethesda, MD 20892

*Please access FILE INFORM and type NEWS to see the most recent news items online!*

IRIS

Continued from page 1

Readers will discover, however, a rather large number of data tabs. Like the data tabs in other TOXNET files, such as CCRIS or RTECS, the ones in IRIS serve to organize data and are not themselves individually searchable or printable. Unlike the rather brief data tabs in CCRIS and RTECS, however, those in IRIS contain extensive textual and numeric information. Readers should note, therefore, that printing certain sections of an IRIS record may result in lengthy displays of data. Since all data tabs organized under a single data field display together in linked fashion, the length and number of IRIS data tabs may limit somewhat the specificity of searching this file.

This extensive data tab construction was necessitated by EPA's policy that certain risk assessment data in IRIS are so inter-related and interdependent that they cannot be properly interpreted if taken out of context. From a pure searching point of view, one might have wished, for example, for a unit record which would allow a user to print just the Oral Reference Dose (RfD) by itself. However, EPA preferred that whenever this data item was displayed, it be accompanied by supporting information such as summaries of the studies used to derive the RfD, uncertainty and modifying factors, and a confidence statement. This supporting information is integral to understanding the significance of the RfD value.

Some IRIS data are tabular (i.e., actual rows and columns of data) and users may discover an occasional inconsistency in formats among records for a given data field. Typically, this results because of a change, over time, in the way data were entered. EPA expects to standardize such information in the future. Users should also note that certain fields such as BCF (Bioconcentration Factors) in Category 6, and RDI (Reference Dose for Inhalation Exposure) in Category 3, currently contain no data. EPA plans to fill in these information gaps in the near future.

IRIS content is highly technical and requires a solid understanding of the risk assessment process in order to be interpreted and utilized properly. Users are advised to make liberal use of TOXNET's online EXPLAIN command and request, as needed, IRIS Background Documents, which elucidate the scientific content of the file. These are available from EPA's IRIS User Support Office (TEL: 513-569-7254). The same office will assist in answering questions about IRIS data. NLM (TEL: 301-496-6531), on the other hand, will provide user assistance on searching the file. Potential IRIS users new to the risk assessment process might consider searching NLM bibliographic files such as TOXLINE and CATLINE for articles and books about this important emerging discipline. Figures 2-6 present some examples of searching IRIS.

# IRIS UNIT RECORD

0	<p><b>** ADMINISTRATIVE INFORMATION</b></p> <p>IRSN            IRIS Number          DATE           Last Revision Date          UPDT           Update History          STAT           IRIS Status          IRH             IRIS Revision History          RLEN           Record Length</p>	4.	<p><b>CAR    ** CARCINOGENICITY ASSESSMENT - LIFETIME EXPOSURE</b></p> <p>CAREV           Evidence for Human Carcinogenicity                            [Classification]                            [Basis for Classification]                            [Human Carcinogenicity Data]                            [Animal Carcinogenicity Data]                            [Supporting Data]</p> <p>CARO            Oral Exposure Carcinogenicity Assessment                            [Classification]                            [Basis for Classification]                            [Oral Slope Factor]                            [Drinking Water Unit Risk]                            [Dose Extrapolation Method]                            [Risk/Water Concentrations]                            [Oral Dose-Response Data]                            [Additional Comments]                            [Discussion of Confidence]</p>
1	<p><b>** SUBSTANCE IDENTIFICATION/USE</b></p> <p>NAME           Name of Substance          RN             CAS Registry Number          SY             Synonyms          MF             Molecular Formula          USE            Major Uses</p>	2	<p><b>CAR            Inhalation Exposure Carcinogenicity Assessment</b>                            [Classification]                            [Basis for Classification]                            [Inhalation Unit Risk]                            [Dose Extrapolation Method]                            [Risk/Air Concentrations]                            [Inhalation Dose-Response Data]                            [Additional Comments]                            [Discussion of Confidence]</p> <p><b>CARDR          Carcinogenicity Assessment Documentation and Review</b>                            [Carcinogenicity Source Document]                            [Review Dates]                            [Verification Date]                            [EPA Contacts]</p>
2	<p><b>** CHEMICAL &amp; PHYSICAL PROPERTIES</b></p> <p>COFO           Color/Form          ODOR           Odor          BP             Boiling Point          MP             Melting Point          MW             Molecular Weight          DEN           Density/Specific Gravity          VAP            Vapor Pressure          VAPD           Vapor Density          EVAP           Relative Evaporation Rate          SOLW           Solubility in Water          FLPT           Flash Point          FLMT           Flammable Limits          AVOI           Conditions &amp; Materials to Avoid          DCMP           Decomposition</p>	3	<p><b>** NONCARCINOGENIC ASSESSMENT - LIFETIME EXPOSURE</b></p> <p>RDO            Reference Dose for Oral Exposure                            [Oral RfD Summary]                            [Oral RfD Studies]                            [Oral RfD Uncertainty]                            [Oral RfD Modifying Factor]                            [Oral RfD Comments]                            [Oral RfD Confidence]                            [Oral RfD Source Document]                            [Review Dates]                            [Verification Date]                            [EPA Contacts]</p> <p>RDI            Reference Dose for Inhalation Exposure                            [Inhalation RfD Summary]                            [Inhalation RfD Studies]                            [Inhalation RfD Uncertainty]                            [Inhalation RfD Modifying Factor]                            [Inhalation RfD Comments]                            [Inhalation RfD Confidence]                            [Inhalation RfD Source Document]                            [Review Dates]                            [Verification Date]                            [EPA Contacts]</p>
5.	<p><b>DWHA    ** DRINKING WATER HEALTH ADVISORIES/ACUTE TOXICITY</b></p> <p>HADV           Health Advisories          HAONE          One-Day Health Advisory          HADEN          Ten-Day Health Advisory          HALTC          Longer-Term Child Health Advisory          HALTA          Longer-Term Adult Health Advisory          HALIF          Lifetime Health Advisory</p> <p>OLEP           Organoleptic Properties          ALAB           Drinking Water Analytical Procedures          TREAT          Drinking Water Treatment          HADR           Health Advisory Documentation and Review                            [Health Advisory Source Document]                            [Health Advisory Review]                            [EPA Drinking Water Contact]</p> <p>ACUTE          Acute Health Hazards                            [Acute Toxicity]                            [Susceptible Populations]                            [Signs and Symptoms]</p>		

Figure 1A

6	AQUA	** AQUATIC TOXICITY ASSESSMENT		TIIRA IISTD ITRTV	*	TIIRA Requirements TIFRA Registration Standard TIFRA Special Review
	BCI	Bioconcentration Factors in Aquatic Species [Bioconcentration Factors] [BCI Documentation]		SUPFR	*	CIRCLA/SARA Requirements (SUPERFUND) Reportable Quantities Title III Listing
7	EXSR	** EXPOSURE STANDARDS AND REGULATIONS		CIRC SARA		
	CAA	Clean Air Act Requirements		RCRA TSCA		RCRA Requirements Toxic Substances Control Act Requirements
	CWA WQCHU	* Clean Water Act Requirements Ambient Water Quality Criteria for Humans	8	RIIS	**	REFERENCES
	WQCAQ	Ambient Water Quality Criteria for Aquatic Organisms		OREF IRI CRI HARF		Oral Reference Dose References Inhalation Reference Dose References Carcinogenicity Assessment References Health Advisory References
	SDWA MCLG MCL SMCL	* Safe Drinking Water Act Requirements Maximum Contaminant Level Goal Maximum Contaminant Level Secondary Maximum Contaminant Level				

Data Element Nomenclature

\*\* CATEGORY Organizes headers and data fields. Associated with a double asterisk. Identified by a mnemonic. Searchable and printable

HEADER Organizes data fields. Associated with a single asterisk. Identified by a mnemonic. Searchable and printable

FIELD The basic data element. Not associated with a special character. Searchable and printable.

[] DATA TAB An organizing element within certain FIELDS. Associated with brackets. Not identified by a mnemonic. Not individually searchable or printable. The FIELD under which they are indented is used to search for and print out DATA TABs as a group

A Few Words about IRIS

IRIS (Integrated Risk Information System) is an online database created by the Environmental Protection Agency (EPA) and mounted on the National Library of Medicine's (NLM) TOXNET system. The database contains EPA health risk and regulatory information on some 400 chemicals, with both carcinogenic and non-carcinogenic risk assessment data for oral and inhalation routes of exposure. These data include Reference Doses (RfD), indicators of non-carcinogenic risks, and Unit Risks, indicators of carcinogenic risks. The regulatory information relates to environmental statutes such as the Clean Air Act, Clean Water Act, and SUPERFUND Legislation. IRIS is further supplemented with EPA Drinking Water Health Advisories, substance identification, chemical and physical properties, acute toxicity, and aquatic toxicity. Bibliographic references are included as well.

May 1990

Figure 1B

1. How does EPA classify benzene, in terms of its human carcinogenicity?

[IRIS] SS 1 /cf?

USER:

benzene (name)

SEARCH IN PROGRESS

SS (1) PSTG (1)

[IRIS] SS 2 /cf?

USER:

prt carev

● **NOTE:** CAREV = Evidence for Human Carcinogenicity

1 - IRIS

NAME - Benzene

RN - 71-43-2

CAREV- CLASSIFICATION

A; human carcinogen

BASIS FOR

CLASSIFICATION

Several studies of increased incidence of nonlymphocytic leukemia from occupational exposure, increased incidence of neoplasia in rats and mice exposed by inhalation and gavage, and some supporting data form the basis for this classification.

HUMAN CARCINOGENICITY

Aksoy et al. (1974) reported effects of benzene exposure among 28,500 Turkish workers employed in the shoe industry. Mean duration of employment was 9.7 years (1-15 year range) and mean age was 34.2 years. Peak exposure was reported to be 210-650 ppm. Twenty-six cases of leukemia and a total of 34 leukemias or preleukemias were observed, corresponding to an incidence of 13/100,000 (by comparison to 6/100,000 for the general population). A follow-up paper (Aksoy, 1980) reported eight additional cases of leukemia as well as

(NOTE: More information is available online)

**\*\* DISCUSSION:** The following is EPA's classification scheme designating the likelihood that a given agent is a carcinogen:

- A Human Carcinogen
- B Probable Human Carcinogen
- C Possible Human Carcinogen
- D Not Classifiable
- E No Evidence of Carcinogenicity

This information is also available by typing EXPLAIN CAREV. The search results indicate that EPA considers benzene to be a human carcinogen.

Figure 2

2. What concentration of 1,1-dichloroethylene in air should probably pose a cancer risk of no greater than 1 in one million?

[IRIS] SS 1 /cf?

USER:

(name) 1,1-dichloroethylene

SEARCH IN PROGRESS

SS (1) PSTG (1)

[IRIS] SS 2 /cf?

USER:

prt cari

● NOTE: CARI = Inhalation Exposure Carcinogenicity Assessment

1 - IRIS

NAME - 1,1-Dichloroethylene

RN - 75-35-4

CARI - CLASSIFICATION C; possible human carcinogen  
 BASIS FOR CLASSIFICATION Tumors observed in one mouse strain after inhalation exposure is the basis for this classification. Other studies were of inadequate design. Vinylidene chloride is mutagenic, and a metabolite is known to alkylate and to bind covalently to DNA. It is structurally related to the known human carcinogen, vinyl chloride.

INHALATION UNIT 5.0E-5/ug/cu.m

RISK

DOSE Linearized multistage procedure, extra risk

EXTRAPOLATION ME

RISK/AIR CONCENTRATIONS

Air Concentrations at Specified Risk Levels:

Risk Level	Concentration
E-4 (1 in 10,000)	2E+0 ug/cu.m
E-5 (1 in 100,000)	2E-1 ug/cu.m
E-6 (1 in 1,000,000)	2E-2 ug/cu.m

INHALATION DOSE RESPONSE DATA

Species/Strain Tumor Type	Dose		Tumor Incidence	Reference
	Administered	Human Equivalent		
Mouse/Swiss, male; kidney adenocarcinoma	Route: Inhalation			Maltoni et al., 1977, 1985
	ppm	mg/kg/day		
	0	0	0/56	
	0	0	0/70	

(NOTE: More information is available online)

**\*\*DISCUSSION:** The Air Concentrations table shows that a no greater than 1 in one million risk occurs at a concentration of 6E-2 micrograms per liter of air. 6E-2 is the same as  $6 \times 10^{-2} = 6/100 = 0.06$ .

Figure 3

3. What is the Reportable Quantity (RQ) of diuron under the Superfund (CERCLA) legislation?

[IRIS] SS 1 /cf?  
 USER:  
 diuron (name)

SEARCH IN PROGRESS  
 SS (1) PSTG (1)

[IRIS] SS 2 /cf?  
 USER:  
 prt cerc

● NOTE: CERC = Reportable Quantities

1 - IRIS  
 NAME - Diuron  
 RN - 330-54-1

CERC -

Value (status) -- 100 pounds (Final, 1985)

Considers technological or economic feasibility? -- NO

Discussion -- The final RQ is based on aquatic toxicity as established under CWA Section 311 (40 CFR 117.3). The available data indicate that the 96-Hour Median Threshold Limit for diuron is between 1 and 10 ppm.

Reference -- 50 FR 13456 (04/04/85)

EPA Contact -- RCRA/Superfund Hotline  
 (800)424-9346 / (202)382-3000 / FTS 382-3000

**\*\*DISCUSSION:** The RQ value is 100 pounds. CERCLA requires that the National Response Center be notified if there is a release of a designated hazardous substance in an amount equal to or greater than the reportable quantity for that substance. Type EXPLAIN CERC for more information on this field and the legislation.

Figure 4



4. What daily exposure to orally ingested chlordane is unlikely to cause adverse effects in humans?

[IRIS] SS 1 /cf?  
 USER:  
 chlordane (name)

SEARCH IN PROGRESS  
 SS (1) PSTG (1)

[IRIS] SS 2 /cf?  
 USER:  
 prt rdo

● NOTE: RDO = Reference Dose for Oral Exposure

1 - IRIS  
 NAME - Chlordane  
 RN - 57-74-9

RDO - ORAL RFD SUMMARY

Critical Effect	Experimental Doses*	UF	MF	RfD
Regional liver hypertrophy in females	NOEL: 1 ppm (0.055 mg/kg/day)	1000	1	6E-5 mg/kg/day
30-Month Rat Feeding Study	LEL: 5 ppm (0.273 mg/kg/day)			

Velsicol Chemical Co.,  
 1983a

\*Conversion Factors: Actual dose tested

ORAL RFD STUDIES

Velsicol Chemical Company. 1983a. MRID No. 00138591, 00144313.  
 Available from EPA. Write to FOI, EPA, Washington, DC 20460.

Charles River Fischer 344 rats (80/sex/dose) were fed technical chlordane at dietary levels of 0, 1, 5, and 25 ppm for 130 weeks. Body weight, food consumption, and water uptake were monitored at regular intervals. Clinical laboratory studies were performed and organ weights measured on eight animals/sex/group at weeks 26 and 52, and on all survivors at week 130. Gross and microscopic pathology were performed on all tissues. Daily dose level of 0.045, 0.229, and 1.175 mg/kg/day for males and 0.055, 0.273, and 1.409 mg/kg/day for females for the 1, 5, and 25 ppm treatment groups, respectively, were calculated from food consumption and body weight data.

(NOTE: More information is available online)

**\*\*DISCUSSION:** An oral reference dose of 6E-5=6 x 10(-5)=0.00006 milligram per kilogram of body weight per day will probably not cause any adverse effects in humans.

Figure 5

5. What concentration of carbon tetrachloride in drinking water consumed for 10 days would have negligible health effects on a child?

[IRIS] SS 1 /cf?

USER:

carbon tetrachloride (name)

SEARCH IN PROGRESS

SS (1) PSTG (1)

[IRIS] SS 2 /cf?

USER:

prt haten cont

● NOTE: HATEN = Ten-Day Health Advisory within the DWHA (Drinking Water Health Advisories/ Acute Toxicity) category

1 - IRIS

NAME - Carbon tetrachloride

RN - 56-23-5

HATEN-

Ten-day HA — 1.6E-1 mg/L

LOAEL — 16 mg/kg/day

UF — 100 (allows for interspecies and intrahuman variability with the use of a LOAEL from an animal study)

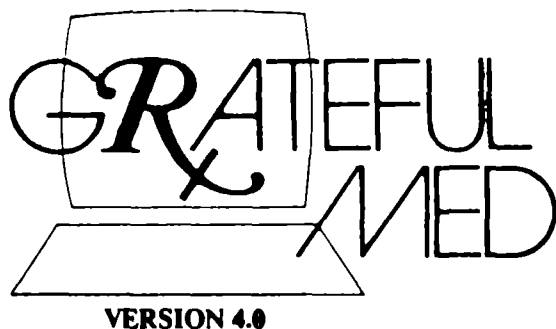
Assumptions — 1 L/day water consumption for a 10-kg child

Principal Study — Bruckner et al., 1986

Rats were administered nine doses of carbon tetrachloride by gavage over an 11-day period. The lowest dose tested (20 mg/kg/day) produced significant changes in serum enzyme levels and hepatic midzonal vacuolation. Higher doses caused more extensive liver damage. A LOAEL of 16 mg/kg/day is established after adjustment for the treatment schedule.

**\*\*DISCUSSION:** Drinking Water Health Advisories serve as technical guidance for the protection of public health. The ten-day Health Advisory represents a daily guidance level for short-term drinking water exposures to protect children from noncarcinogenic endpoints of toxicity. For carbon tetrachloride, this value is  $1.6E-1 = 1.6 \times 10^{-1} = 0.16$  milligrams per liter of water, assuming that a 10 kg child drinks one liter of water per day. Type EXPLAIN HATEN for more details.

Figure 6



[Editor's Note Each month the Technical Bulletin features a column concerning GRATEFUL MED, often consisting of questions/answers Contributions for this column will be appreciated Please note the use of icons to indicate whether the item pertains to the IBM or Macintosh version of GRATEFUL MED ]



*Question: I'm installing GRATEFUL MED and I have lost the letter you sent me with my User ID code and Passwords. Can I call the Service Desk to get them?*

**Answer:** No. Requests for the User ID code and Passwords cannot be taken over the phone because of obvious security reasons. If you cannot locate this information from your old version, you must send us a letter (on letterhead stationery where applicable) requesting this information. Please provide a daytime telephone number where we can reach you if necessary. Send this letter to MMS/NLM, 8600 Rockville Pike, Bethesda, MD 20894. FAX: (301) 496-0822.



*Question: After I've finished a search using GRATEFUL MED on the Macintosh, I get a message telling me nothing was found. I watched citations go by on my screen, so I know something was found?!?*

**Answer:** This usually happens if the Search file was saved outside of the GRATEFUL MED folder. If so, it could then have migrated to the desktop or even another folder. To correct this, make sure your Search files are always saved in your GRATEFUL MED folder.

Users have reported this has also happened in the following situations: the hang-up did not go smoothly, e.g., there was a delay in hanging up the modem; the user pressed Command-Period at the end of the search to hang up the modem; the NLM computer connection timed-out waiting for the user to answer the "DO YOU WANT MORE?" question; the user has a Shiva Net modem. If you are having this problem under different circumstances we would appreciate it if you would let us know.



*Question: I've tried doing a title search for an article in the Journal of Personality. The article was published last year but I was unable to find it on MEDLINE. Is this because you don't cover this journal in MEDLINE?*

**Answer:** A small number (about 16%) of the journals in MEDLINE are what we call "Selectively indexed." This means we do not include a reference for every article from that journal. Rather, we include only articles from selectively indexed journals that we consider to be in scope for MEDLINE, a biomedical database. The Journal of Personality is an example of a selectively indexed journal, so although you will find citations for some articles from this journal in MEDLINE, the article you are looking for was not included.

Don't forget to use Title Abbreviations on the JOURNAL ABBREV line when searching for a particular journal (in this case, J PERS).

## NLM MEDLARS Password Security

Searchers are reminded that the password associated with their User ID code is provided for security purposes. No searcher needs to share that password with another person unless that person is known to the searcher and has permission to search with that User ID code. Passwords may be changed easily using the PROFILE MODIFY PASSWORD Command as the following ELHILL example illustrates; NLM recommends that passwords be changed regularly. Please note that the ELHILL databases (MEDLINE, CATLINE, CANCERLIT, etc.) and TOXNET databases (HSDB, TRI, etc.) are mounted on separate computers. Remember to change your password on both systems. Please call MMS if you have questions on how to change your password.

SS 1 /C?  
 USER:  
**profile modify password**  
 PROG:  
 PASSWORD?

USER:	
<b>spring</b>	
PROG:	
PASSWORD	SPRING
NAME	HARRY SMITH
ADDRESS	100 EAST WOODLAWN
CITSTAZIP	BETHESDA, MD 20094
PAGELNGTH	00025
PAGEWIDTH	00072
OK? (Y/N/C/LIST)	

USER:  
 y  
 PROG:  
 PROFILE COMPLETED.

# Serials Update

## INDEXED TITLES UPDATE, MARCH 1990

The following titles cited in MEDLINE, HEALTH, and POPLINE have recently been selected for indexing, undergone a title change, or ceased publication. This list is not cumulative; the information provided is only for titles whose status has changed since the

last UPDATE. More detailed information may be found in SERLINE. For further information, please contact MMS or Ms. Esther Baldinger, (301) 496-1276, Technical Services Division, NLM.

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NY 10003

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113 TOKYO, JAPAN
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W1 IM484I 0893-5300  
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- IM INTERNATIONAL JOURNAL OF TECHNOLOGY  
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W1 IN791MC 0266-4623  
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- IM JOURNAL OF THE AMERICAN SOCIETY OF  
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UNIVERSITY DENTAL SCHOOL,240 E. HURON  
ST.,CHICAGO IL 60611
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W1 RE716QK 0304-4750  
SR0054360 JC: AOW  
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LISBOA,PORTUGAL
- IDL REVISTA DE LA SOCIEDAD ODONTOLOGICA DE LA  
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5N1,MAR 1984--  
W B SAUNDERS  
PHILADELPHIA PA UNITED STATES  
CONTINUES: SEMINARS IN ULTRASOUND.  
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W1 SE489R 0887-2171  
SR0052499 JC: APQ  
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W1 SK59Q 1011-0283  
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- IM SOCIAL WORK  
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1,1956--  
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CONTINUES: SOCIAL WORK JOURNAL. SUPERSEDES  
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SR0067593 JC: AN5  
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1N1,DEC 1988--  
ASPEN PUBLISHERS  
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W1 T0539V 0899-3459  
SR0064654 JC: A0D



TITLE CHANGES, FEBRUARY 1990

- |   |  |
|---|--|
| <p>IM ANNALI DI IGIENE<br/>ANN IG<br/>1:41-2, JAN-APR 1989--<br/>SOCIETA EDITRICE UNIVERSO<br/>ROMA ITALY<br/>CALLED ALSO: ANNALI DI IGIENE, MEDICINA<br/>PREVENTIVA E DI COMUNITA. CONTINUES:<br/>NUOVI ANNALI D IGIENE E MICROBIOLOGIA.<br/>W1 AN491SK 0029-6287<br/>SR0067492 JC: AND</p>  | <p>HLI HEALTHCAPE INFORMATICS<br/>HEALTHC INFORM<br/>7NC, FEB 1990--<br/>HEALTH DATA ANALYSIS<br/>LAKEWOOD CO UNITED STATES<br/>CONTINUES: U.S. HEALTHCARE.<br/>ON ORDR<br/>SR0067626 JC: A08</p>  |
| <p>IM EUROPEAN ARCHIVES OF OTO-RHINO-LARYNGOLOGY<br/>EUR ARCH OTORHINOLARYNGOL<br/>247, 1990--<br/>SPRINGER VERLAG<br/>HEIDELBERG GERMANY, WEST<br/>CONTINUES: ARCHIVES OF<br/>OTO-RHINO-LARYNGOLOGY. OFFICIAL JOURNAL OF<br/>THE EUROPEAN FEDERATION OF<br/>OTO-RHINO-LARYNGOLOGICAL.<br/>W1 EU612FE 0937-4477<br/>SR0067491 JC: ANB</p> | <p>IDL INTERNATIONAL JOURNAL OF ORAL IMPLANTOLOGY<br/>INT J OPAL IMPLANTOL<br/>4NC, 1987--<br/>INTERNATIONAL CONGRESS OF ORAL<br/>IMPLANTOLOGIST<br/>NEW YORK NY UNITED STATES<br/>CONTINUES: IMPLANTOLOGIST.<br/>INDEXING BEGAN WITH V4N1, 1987<br/>W1 IN77TL 1049-1842<br/>SR0067493 JC: ANG</p> |
| <p>IM EXPERIMENTAL PHYSIOLOGY<br/>EXP PHYSIOL<br/>75, 1990--<br/>CAMBRIDGE UNIVERSITY PRESS FOR THE<br/>PHYSIOLOGICAL SOCIETY<br/>CAMBRIDGE ENG ENGLAND<br/>CONTINUES: QUARTERLY JOURNAL OF<br/>EXPERIMENTAL PHYSIOLOGY.<br/>W1 EX511TK 0958-0670<br/>SR0067530 JC: AND</p>   | <p>IDL WDA JOURNAL<br/>WDA J<br/>64N11, NOV 1988--<br/>WISCONSIN DENTAL ASSOCIATION<br/>MILWAUKEE WI UNITED STATES<br/>CONTINUES: WISCONSIN DENTAL ASSOCIATION<br/>JOURNAL.<br/>IN PROCESS<br/>SR0067522 JC: ANL</p>   |

TITLES NO LONGER INDEXED AS OF FEBRUARY 1990

- |   |  |
|---|--|
| <p>IM BIULLETEN VSESOIUZNOGO KARDIOLOGICHESKOGO<br/>NAUCHNOGO TSENTRA AMN SSSR<br/>BIULL VSESOIUZNOGO KARDIOL NAUCHN TSENTRA<br/>AMN SSSR<br/>1, 1978-12, 1989<br/>MEDITSINA<br/>MOSKVA USSR<br/>EACH ISSUE ALSO HAS A DISTINCTIVE TITLE.<br/>INDEXING BEGAN WITH V.1, 1981. V1-4 OUT OF<br/>PRINT.<br/>W1 BI99LU 0201-7369<br/>B20810000 JC: AHS</p>   | <p>HLI CANADIAN DOCTOR<br/>CAN DOCT<br/>1, 1935--<br/>PHARMACCOMMUNICATIONS<br/>MARKHAM, ONTARIO CANADA<br/>INDEXING BEGAN WITH V47N12, DEC 1977 AND<br/>CEASED WITH V55N12, NOV-DEC 1989.<br/>W1 CA55 0008-3429<br/>C03600000 JC: CG4</p>   |
| <p>IM BULLETIN OF CLINICAL NEUROSCIENCES<br/>BULL CLIN NEUROSCI<br/>48, 1983--<br/>ACADEMIC PRESS<br/>NEW YORK UNITED STATES<br/>PUBLISHED UNDER THE AUSPICES OF: THE LOS<br/>ANGELES SOCIETY OF NEUROLOGY AND<br/>PSYCHIATRY, AND: THE SOUTHERN CALIFORNIA<br/>NEUROSURGICAL SOCIETY. CONTINUES: BULLETIN<br/>OF THE LOS ANGELES NEUROLOGICAL SOCIETIES.<br/>INDEXING CEASED WITH V52, 1987.<br/>W1 BU756T 0736-3583<br/>SR0051830 JC: BEZ</p> | <p>IM CHUNG-HUA FANG SHE HSUEH TSA CHIH [CHINESE<br/>JOURNAL OF RADIOLOGY]<br/>CHUNG HUA FANG SHE HSUEH TSA CHIH<br/>1, 1953?--<br/>CHUNG-HUA I HSUEH HUI<br/>PEKING CHINA<br/>PUBLICATION SUSPENDED 1966-1977.<br/>INDEXING BEGAN WITH V13N1, 1979 AND CEASED<br/>WITH V23N6, DEC 1989.<br/>W1 CH9815 0529-5661<br/>C20975000 JC: 07D</p> |

NLM TECHNICAL BULLETIN MAR 90

- HLI CONTRACT HEALTHCARE  
 CONTRACT HEALTHC  
 FEB 1988-NOV/DEC 1988  
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 LYNDHURST NJ UNITED STATES  
 INDEXING BEGAN WITH MAY 1988.  
 AHA 0891-5059  
 SR0063183 JC: DR6
- IM PERSPECTIVES IN PSYCHIATRIC CARE  
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 VOLUME 2 PUBLISHED IN 3 NUMBERS. NO ISSUES  
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 INDEXING FOR ONLINE FILES BEGAN WITH  
 V5N3,MAY-JUN 1964 AND CEASED WITH  
 V25N1,1989.  
 W1 PE871E 0031-5990  
 P09220000 JC: OZT
- IM POLSKI PRZEGLAD RADIOLOGII  
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 47,1983--  
 PANSTWOWY ZAKLAD WYDAWNICTW LEKARSKICH  
 WARSZAWA POLAND  
 CONTINUES: POLSKI PRZEGLAD RADIOLOGII I  
 MEDYCINY NUKLEARNEJ.  
 INDEXING CEASED WITH V52N6,NOV-DEC 1988.  
 W1 P02878 0137-7183  
 P18352000 JC: PBJ
- IM STRAHLENSCHUTZ IN FORSCHUNG UND PRAXIS  
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 FREIDING  
 INDEXING FOR ONLINE FILES BEGAN WITH  
 V4,1964 AND CEASED WITH V30,1988.  
 W1 ST756 0081-5888  
 S42860000 JC: VIS
- IM VESTNIK RENTGENOLOGII I RADIOLOGII  
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 IZDATELSTVO MEDITSINA  
 MOSKVA USSR  
 PUBLICATION SUSPENDED 1942-43, 1948-49.  
 INDEXING FOR ONLINE FILES BEGAN WITH  
 V40N2,MAR-APR 1965.  
 W1 VE844 0042-4676  
 V04580000 JC: XDB
- IM REVISTA DE CHIRURGIE, ONCOLOGIE,  
 RADIOLOGIE, O.R.L., OFTALMOLOGIE,  
 STOMATOLOGIE. OTO-RINO-LARINGOLOGIA  
 REV CHIR [OTORINOLARINGOLJ]  
 19N4,1974--  
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 INDEXING CEASED WITH V34N4,OCT-DEC 1989.  
 W1 RE378FL 0377-7863  
 R31580000 JC: RMH
- HLI SOCIOLOGY OF HEALTH AND ILLNESS  
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 INDEXING BEGAN WITH V1N1,JUN 1979 AND  
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 W1 S0979NE 0141-9889  
 S30230000 JC: UT3



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CHEMID	Online Algorithm	Online Algorithm	Not yet available	Not yet available
CHEMLINE <sup>®</sup>	6/Online Algorithm	12/Online Algorithm	7/\$1,000/yr minimum plus royalties	7/\$1,000/yr minimum plus royalties
CLINPROT <sup>®</sup> *	Online Algorithm	Online Algorithm	\$1,000/yr minimum	\$1,000/yr minimum
DENTALPROJ	Online Algorithm	Online Algorithm	Not yet available	Not yet available
DIRECTORY OF BIOTECHNOLOGY INFORMATION RESOURCES (DBIR <sup>™</sup> )	8/Online Algorithm	9/Online Algorithm	14/\$2,500/yr minimum	15/\$2,500/yr minimum
DIRLINE <sup>®</sup>	Online Algorithm	Online Algorithm	Not available	Not available
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ENVIRONMENTAL MUTAGEN INFORMATION CENTER BACKFILE (EMICBACK)	8/Online Algorithm	9/Online Algorithm	Not yet available	Not yet available
ENVIRONMENTAL TERATOLOGY INFORMATION CENTER BACKFILE (ETICBACK)	8/Online Algorithm	9/Online Algorithm	Not yet available	Not yet available
HAZARDOUS SUBSTANCES DATA BANK (HSDB®)	8/Online Algorithm	9/Online Algorithm	11,14/\$5,000/yr minimum	11,15/\$5,000/yr minimum
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HISTLINE®	Online Algorithm	Online Algorithm	\$1,000/yr minimum	\$1,000/yr minimum
INFORM	Online algorithm excluding the charge for citations and characters; no offline processing	Online algorithm excluding the charge for citations and characters; no offline processing	Not available	Not available
INTEGRATED RISK INFORMATION SYSTEM (IRIS)	8/Online Algorithm	9/Online Algorithm	Not yet available	Not yet available



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MESH VOCABULARY FILE®	Online Algorithm	Online Algorithm	10/\$1,000/yr flat rate; no usage charges (no charge with MEDLINE)	10/\$1,250/yr flat rate; no usage charges (no charge with MEDLINE)
NAME AUTHORITY FILE®	Online Algorithm	Online Algorithm	\$1,000/yr flat rate; no usage charges	\$1,250/yr flat rate; no usage charges
PDQ® *	\$23.50/hr prime time; \$16.50/hr non-prime time; no offline processing	\$26.50/hr prime time; \$19.50/hr non-prime time; no offline processing	18/Available from NCI	18/Available from NCI

\*Registered to the National Cancer Institute



**NLM TECHNICAL BULLETIN MAR 90**

**NLM DOMESTIC AND NON-U.S. CHARGES EFFECTIVE APRIL 1, 1990**

<u>Database</u>	<u>ONLINE CHARGES</u>		<u>LEASED TAPE CHARGES</u>	
	<u>Domestic 1/</u>	<u>Non-U.S. 2/</u>	<u>Domestic 3/</u>	<u>Non-U.S. 4/</u>
POPLINE™	Online Algorithm	Online Algorithm	\$2,000/yr minimum	\$2,000/yr minimum
REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS®)**	8/Online Algorithm	9/Online Algorithm	19/Available from NIOSH	15,19/\$2,500/yr minimum
SDILINE®	Online Algorithm	Online Algorithm	\$5,000/yr minimum; updated monthly (if leased separately from MEDLINE)	\$5,000/yr minimum; updated monthly (if leased separately from MEDLINE)
SERLINE®	Online Algorithm	Online Algorithm	13/\$1,000/yr flat rate; no usage charges	13/\$1,250/yr flat rate; no usage charges
TOXIC CHEMICAL RELEASE INVENTORY (TRI'87)	8/Online Algorithm	9/Online Algorithm	14/\$2,500/yr minimum	15/\$2,500/yr minimum
TOXLINE® & TOXLINE65	Online Algorithm	12/Online Algorithm	7/Current file: (1981 through the current year) \$2,500/yr minimum  Backfile: (1965-80) \$2,500/yr minimum	7/Current file: (1981 through the current year) \$2,500/yr minimum  Backfile: (1965-80) \$2,500/yr minimum
TOXLIT™& TOXLIT65	16/Online Algorithm	12/Online Algorithm	7/Current file: (1981 through the current year) \$2,500/yr minimum plus royalties	7/ Current file: (1981 through the current year) \$2,500/yr minimum plus royalties

\*\*Registered to the National Institute for Occupational Safety and Health



NLM DOMESTIC AND NON-U.S. CHARGES EFFECTIVE APRIL 1, 1990

<u>Database</u>	<u>ONLINE CHARGES</u>		<u>LEASED TAPE CHARGES</u>	
	<u>Domestic 1/</u>	<u>Non-U.S. 2/</u>	<u>Domestic 3/</u>	<u>Non-U.S. 4/</u>
TOXLIT & TOXLIT65 contd.			<u>Backfile:</u> (1965-80) \$2,500/yr minimum plus royalties	<u>Backfile:</u> (1965-80) \$2,500/yr minimum plus royalties
TOXNET <sup>®</sup> Databases & Databanks	8/Online Algorithm	9/Online Algorithm	See individual database names: CCRIS, DBIR, EMICBACK, ETICBACK, HSDB, IRIS, RTECS, TRI	





NOTES: In addition to the above rates, the following charges apply to each Domestic and Non-U.S. Online Center: \$1 per Offsearch per file and \$1 per Automatic SDI. Automatic SDI searches on the TOXLIT database are \$5.00 for domestic users (\$1.00 plus \$4.00 royalty).

A Tape License Agreement packet is available upon written request to the Chief, Bibliographic Services Division, National Library of Medicine, Bethesda, MD 20894. For a fee of \$25.00 (\$31.25 non-U.S. requesters), a sample tape for one database is also available upon written request in advance of signing a license agreement.

Replacement Tape Policy: All replacement tapes should be requested within 30 days of the original shipment date. The following conditions apply:

1. If a licensee notifies NLM that a tape is unreadable, the tape should be returned to NLM for testing.
2. If the returned tape is read and found to have errors or is found to be unreadable, NLM will produce and send a replacement tape at no charge.
3. If the tape is read and found to have no errors, NLM will produce and send a replacement tape. There will be a \$75.00 charge per tape.
4. If a licensee notifies NLM that the tape is unreadable but the tape is not returned to NLM for testing, there will be a \$75.00 charge for each replacement tape NLM produces and sends to the licensee.

- 
- 1/ ELHILL online charges for domestic users are calculated by using an algorithm which includes connect hour charges and charges for search statements, citations, interactions (i.e., carriage returns), computer resources (i.e., disk accesses), and characters transmitted to the user's terminal. Unless otherwise noted, the connect hour charge portion of the algorithm is \$7.85/hour prime time and \$5.10/hour non-prime time, and the offline print charge is \$0.25 per page. Details of the entire algorithm follow these notes.
  - 2/ ELHILL online charges for non-U.S. users are calculated by using an algorithm which includes connect hour charges and charges for search statements, citations, interactions (i.e., carriage returns), computer resources (i.e., disk accesses), and characters transmitted to the user's terminal. Unless otherwise noted, the connect hour charge portion of the algorithm is \$10.85/hour prime time and \$8.10/hour non-prime time, and the offline print charge is \$0.35 per page. If MEDLINE access is chosen by the designated International Center, then the only required minimum charge is the \$15,000 MEDLINE minimum. All other online databases are available and charges are calculated using the online algorithm. All database usage can be used to offset the MEDLINE minimum. If MEDLINE access is not chosen but other database access is, then the other minimum(s) for the chosen file(s) are charged. The minimum for each database is the same as that charged to lease the database. Usage over the minimum(s) will be calculated at the rate of the file being accessed. Minimums pertain only to the designated International Center and not to individual users. Details of the entire algorithm follow these notes.
  - 3/ ELHILL tape charges for domestic users consist of an annual minimum charge for each database except the technical databases (AVLINE, CATLINE, NAME AUTHORITY, and SERLINE), and the MESH VOCABULARY File. Unless otherwise noted, usage



charges of \$4.00/connect hour and \$0.01/offline citation are applied to the annual minimum. (The use charge is \$3.00/connect hour between 6:00 p.m. and 6:00 a.m. local time Monday through Friday, and all day Saturday and Sunday, and U.S. Federal Government holidays. This time period is referred to as tape non-prime time.)

If the calculated usage charges exceed the annual minimum, the difference is due. For institutions or organizations leasing two or more files with a minimum plus usage, the dollar equivalent of usage over the minimum for one file may be applied to the minimum for the other files(s).

An annual flat fee, with no usage charges, will be charged for each of the technical databases (AVLINE, CATLINE, NAME AUTHORITY, and SERLINE), and the MESH VOCABULARY File. Usage on other leased databases may not be applied to these annual flat rate fees.

Domestic centers providing service to non-U.S. users will be charged at the non-U.S. rate for this portion of their service.

Extra charges are levied for Class Maintained files or special formats. Prices for files and formats currently available are:

SDILINE GENER FORMAT	\$1,000/year
CLASS MAINTAINED MEDLINE DATA:	
Complete Database Replacement Copies	\$3,000/year
Changed Records Only	\$1,000/year

Charges for physical tapes and shipping are included in the minimum charges for each database.

4/ Tape charges for non-U.S. users and the portion of non-U.S. use provided by domestic centers consist of an annual minimum charge for each database except the technical databases (AVLINE, CATLINE, NAME AUTHORITY, and SERLINE), and the MESH VOCABULARY File. Unless otherwise noted, usage charges of \$7.00/connect hour and \$0.03/offline citation are applied to the annual minimum. (The use charge is \$6.00/connect hour between 6:00 p.m. and 6:00 a.m. local time Monday through Friday, and all day Saturday and Sunday. This time is referred to as tape non-prime time.) If the calculated usage charges exceed the annual minimum, the difference is due. For institutions or organizations leasing two or more files with a minimum plus usage, the dollar equivalent of usage over the minimum for one file may be applied to the minimum for the other file(s).

An annual flat fee, with no usage charges, will be charged for each of the technical databases (AVLINE, CATLINE, NAME AUTHORITY, and SERLINE), and the MESH VOCABULARY File. Usage on other leased databases may not be applied to these annual flat-rate fees.

Extra charges are levied for Class Maintained files or special formats. Prices for files and formats currently available are:

SDILINE GENER FORMAT	\$1,000/year
CLASS MAINTAINED MEDLINE DATA:	
Complete Database Replacement Copies	\$3,000/year
Changed Records Only	\$1,000/year



Charges for physical tapes and shipping are included in the minimum charges for each database.

- 5/ Available in ELHILL or MARC version except for weekly updates of the current-year CATLINE file which are available only in MARC.
- 6/ CHEMLINE royalty charges of \$0.45 per online citation, \$0.32 per search statement, and \$31.00 per hour of connect time are added to the algorithm. Offline page charges of \$1.33 per page include \$1.08 per page royalty. Royalty charges are subject to change without advance notice.
- 7/ CHEMLINE, TOXLIT, and TOXLIT65 tape royalties are not paid to NLM but are negotiated with and paid directly to the file content provider, Chemical Abstracts Service (CAS). TOXLINE and TOXLINE65 tape royalties are not paid to NLM but are negotiated with and paid directly to the file content providers, BioSciences Information Service (BIOSIS) and the American Society of Hospital Pharmacists (ASHP). Licensees must make separate arrangements with those data suppliers in advance. A second leasing option is available for TOXLINE and TOXLINE65 which includes all subfiles except BIOSIS and IPA. The charges are the same as for the full files because the same number of update tapes are sent. Please specify which TOXLINE version is to be licensed.
- 8/ TOXNET online charges are calculated for domestic users by using an algorithm which includes connect hour charges and charges for search statements, interactions (i.e., carriage returns), and characters created for transmission to the user's terminal. Unless otherwise noted, the connect hour portion of the algorithm is \$10.00/hour prime time and \$8.00/hour non-prime time, and the offline print charge is \$0.25 per page.
- 9/ TOXNET online charges are calculated for non-U.S. users by using an algorithm which includes connect hour charges and charges for search statements, interactions (i.e., carriage returns), and characters created for transmission to the user's terminal. Unless otherwise noted, the connect hour portion of the algorithm is \$13.00/hour prime time and \$11.00/hour non-prime time, and the offline print charge is \$0.35 per page. If MEDLINE access is not chosen by the designated International Center, then one minimum of \$5000/year is charged for access to all TOXNET files. All usage can be used to offset this minimum. Usage over the minimum charges will be calculated at the rate of the file being accessed.
- 10/ Available in ELHILL, SDF, Card Image, or MARC format. ELHILL format is updated either monthly or annually; SDF, Card Image, and MARC formats are updated annually.
- 11/ The Emergency Medical Treatment (EMT) field in HSDB is not distributed in the leased databases.
- 12/ Effective January 1988, NLM negotiates with and collects royalties for the Chemical Abstracts Service for CHEMLINE, TOXLIT, and TOXLIT65 from the non-U.S. Online Center. Separate agreements between the non-U.S. Online Center and BIOSIS or ASHP are no longer necessary.



- 13/ Certain SERLINE data elements related to holdings information are not distributed in the leased databases.
- 14/ TOXNET tape charges for domestic users consist of an annual minimum charge for each database. Usage charges of \$4.00/connect hour for prime time and \$3.00/connect hour for non-prime time (between 6:00 P.M. and 6:00 A.M. ET, Monday-Friday and all day Saturday and Sunday) and \$1.00 per 1000 characters printed offline are applied to the annual minimum. If the calculated usage charges exceed the annual minimum, the difference is due.
- 15/ TOXNET tape charges for non-U.S. users consist of an annual minimum charge for each database. Usage charges of \$7.00/connect hour for prime time and \$6.00/connect hour for non-prime time (between 6:00 P.M. and 6:00 A.M. ET, Monday-Friday and all day Saturday and Sunday) and \$1.25 per 1000 characters printed offline are applied to the annual minimum. If the calculated usage charges exceed the annual minimum, the difference is due.
- 16/ TOXLIT royalty charges of \$0.45 per online citation, \$0.61 per search statement and \$31.00 per hour of connect time are added to the basic online algorithm. Offline page charges of \$1.33 per page include \$1.08 per page royalty. Royalty charges are subject to change without advance notice.
- 17/ Domestic users may also obtain portions of the MEDLINE data called subsets. A subset information packet is available upon request from the Chief, Bibliographic Services Division, National Library of Medicine, Bethesda, MD 20894. Prices are prorated on the amount of data received and flat-rate option is also available to qualified users. Details on charges are found in the Fee Schedules portion of this document.
- 18/ NLM licenses CANCERLIT only to official International MEDLARS Centers. All prospective domestic and non-U.S. licensees of PDQ and domestic-only licensees of CANCERLIT should contact NCI (National Cancer Institute):

R.A. Bloch International Cancer Information Center  
9030 Old Georgetown Road  
Bethesda, MD 20852  
(301) 496-7403

CANCERLIT, CLINPROT, and PDQ are registered trademarks of the National Cancer Institute.

- 19/ NLM licenses RTECS only to official International MEDLARS Centers. Prospective domestic licensees of RTECS should contact NIOSH (National Institute for Occupational Safety and Health) for information:

Editor, RTECS  
NIOSH  
4676 Columbia Parkway  
Cincinnati, OH 45226  
(513) 533-8317

RTECS is a registered trademark of the National Institute for Occupational Safety and Health.





**NLM TECHNICAL BULLETIN MAR 90**

EFFECTIVE JANUARY 1, 1990

**NLM ONLINE PRICING ALGORITHM CHARGES TO DOMESTIC USERS 1/**

File	Connect Charge (Per Hour)		Search Statement Charge	Online Citation Charge	Interaction Charge (Carriage Returns)	Computer Resources Disk Accesses (Per 100)		Online Character Charge (Per 1,000)		Average Searcher Charges* (Per Hour)	
	Non-Prime	Prime				Non-Prime	Prime	Non-Prime	Prime	Non-Prime	Prime
<b><u>ELHILL COMPUTER</u></b>											
MEDLINE & Backfiles	\$ 5.10	\$ 7.85	\$ .02	\$ .01	\$ .01	\$ .07	\$ .13	\$ .08	\$ .12	\$16.50	\$23.50
TOXKIT & TOXKIT65	36.10**	38.85**	.63**	.46**	.01	.07	.13	.08	.12	165.00	171.00
TOXLINE & TOXLINE65	5.10	7.85	.02	.01	.01	.07	.13	.08	.12	16.50	23.50
CHEMLINE	36.10***	38.85***	.34***	.46***	.01	.07	.13	.08	.12	101.00	107.00
INFORM	5.10	7.85	.02	—	.01	.07	.13	—	—	8.50	11.50
All Other	5.10	7.85	.02	.01	.01	.07	.13	.08	.12	16.50	23.50
MEDLEARN	16.50	23.50	—	—	—	—	—	—	—	16.50	23.50
FDQ	16.50	23.50	—	—	—	—	—	—	—	16.50	23.50
<b><u>TORNET COMPUTER</u></b>											
ALL FILES	\$ 8.00	10.00	.04	—	.02	—	—	.08	.12	18.60	25.70

- \* AVERAGE SEARCHER CHARGES PER HOUR MAY DIFFER ACCORDING TO COMPUTER RESOURCES USED AS WELL AS CITATIONS AND CHARACTERS PRINTED ONLINE (OR DOWNLOADED TO COMPUTER).
- \*\* Includes royalty charges of \$31.00 per Connect Charge, \$0.61 per Search Statement, and \$0.45 per Online Citation Charge for TOXKIT and its Backfile (TOXKIT65).
- \*\*\* Includes royalty charges of \$31.00 per Connect Charge, \$0.32 per Search Statement, and \$0.45 per Online Citation Charge for CHEMLINE.

**NLM OFFLINE CHARGES TO DOMESTIC USERS 1/**

<b><u>Pages</u></b>	<b><u>Per Page</u></b>
MEDLINE and Other Databases	\$0.25
TOXKIT & TOXKIT65	1.33 (includes \$1.08 royalty charge per page)
CHEMLINE	1.33 (includes \$1.08 royalty charge per page)
TORNET Files	0.25
<b><u>Offsearches</u></b>	<b><u>Per File</u></b>
All Databases	\$1.00 (plus page charges)
<b><u>Automatic SUI Searches</u></b>	<b><u>Per Search</u></b>
SUILINE, HEALTH, AVLINE, CAYLINE, CANCERLIT, FOPLINE, TOXLINE, AIDSLINE	\$1.00 (plus page charges)
TOXKIT	\$5.00 (plus page charges; includes \$4.00 royalty charge)

Current online prime time is 10:00 AM to 5:00 PM Eastern Time, Monday through Friday. All other online time is non-prime time.

1/ Non-U.S. online users incur charges under the NLM online pricing algorithm and are charged \$3.00 extra on the connect charge (per hour) portion and \$0.10 extra per offline printed page.



**FEE SCHEDULES FOR LEASING NLM DATA IN  
MACHINE-READABLE FORM**

Overview of the fee schedules:

In general there are two types of charges associated with licensing machine-readable data from NLM. These are:

1. License fee to obtain the data. This is either a minimum amount (which is offset by a use charge) or a flat rate; and
2. A charge for the use and/or redistribution of the data. Some NLM databases do not require a use charge.

Domestic licensees who do not obtain data directly from NLM but actually receive the NLM data reformatted from a third party that itself is licensed to receive NLM data, are charged a reduced license fee.

Licensees in foreign countries, or domestic licensees who provide data outside the United States and its Territories pay a surcharge for foreign usage. This surcharge was established to recover the portion of the costs of creating the database attributable to non-U.S. use.

Pricing for MEDLINE and its Backfiles is presented in detail on the following pages because these are the databases most frequently leased. Please refer to the front section of this "MEDLARS Pricing Schedule" for information on the other NLM databases and databanks.

Please direct any questions regarding the fee schedules or licensing or redistributing NLM data to:

Mr. Sheldon Kotzin  
Chief, Bibliographic Services Division  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894  
Telephone: 301-496-6217  
FAX: 301-496-0822



FEE SCHEDULE FOR LEASING  
MEDLINE, ITS BACKFILES, AND SDILINE\*

SUMMARY FEE SCHEDULE

License Fee: for licensees providing online services and/or redistributing the data. The fee includes the MeSH Vocabulary File.

For licensees receiving the data from NLM:

	<u>Domestic</u>	<u>Non-U.S.</u>
1. Annual minimum for Complete Current Year		
Monthly Updates	\$ 5,000	\$ 5,000
Semi-Monthly Updates	\$ 8,000	\$ 8,000
2. Annual minimum for Complete Older Data	\$10,000	\$10,000

For licensees receiving reformatted data from a third party:

	<u>Domestic</u>	<u>Non-U.S.</u>
1. Annual fee for Current Year	\$ 5,000	N/A
2. Annual fee for Complete Older Data	\$ 5,000	N/A

Use Charge: for licensees providing online services not eligible for a flat rate.

	<u>Domestic</u>	<u>Non-U.S.</u>
1. Prime time	\$4.00/hr. + \$0.01/offline cit.	\$7.00/hr. \$0.03/offline cit.
2. Non-prime**	\$3.00/hr. + \$0.01/offline cit.	\$6.00/hr. \$0.03/offline cit.

Redistribution Charge: for licensees redistributing the data.

	<u>Domestic</u>	<u>Non-U.S.</u>
Redistribution on laser optical discs	\$100/subscription***	\$125/subscription***

\* Charges for SDILINE are the same as those for the current year of MEDLINE.

\*\* Non-prime time is defined as between 6:00 P.M. and 6:00 A.M. local time, Monday through Friday and all day Saturday, Sunday, and U.S. Federal Government holidays.

\*\*\*Same rates apply to multiple subscriptions.



**DETAILED FEE SCHEDULE**

1. Online services:

Multiple Use: For licensees providing online services to multiple users.

a. ANNUAL MINIMUM + USAGE OPTION

This option is available to any licensee. The annual minimum, which varies with the number of records received, is offset by a use charge. If actual use is a dollar amount equivalent to or less than the minimum, the minimum is paid; if actual use is a dollar amount equivalent to more than the minimum, the dollar equivalent is paid.

ANNUAL MINIMUM

<u>Current Year Annual Minimums</u>	<u>Domestic Monthly Updates</u>	<u>Semi-Monthly Updates</u>	<u>Non-U.S. Monthly Updates</u>	<u>Semi-Monthly Updates</u>
76% to total avail. records	\$ 5,000	\$8,000	\$5,000	\$8,000
51% to 75% avail. records	\$ 3,750	N/A	\$3,750	N/A
26% to 50% avail. records	\$ 2,500	N/A	\$2,500	N/A
up to 25% avail. records	\$ 1,250	N/A	\$1,250	N/A

Note: Semi-monthly updates will consist of all records (100% of the file) and all data elements.

<u>Older Data Annual Minimums</u>	<u>Domestic</u>	<u>Non-U.S.</u>
76% to total avail. records	\$10,000	\$10,000
51% to 75% avail. records	\$ 7,500	\$ 7,500
26% to 50% avail. records	\$ 5,000	\$ 5,000
up to 25% avail. records	\$ 2,500	\$ 2,500

Note: In 1990, 25% covers data back through 1985 and 50% back through 1980 if all records are selected.

Use

Usage Charges - this charge is independent of the number of records received. Online use is measured by the connect hour; citation charges are for citations printed offline.

	<u>Domestic</u>	<u>Non-U.S.</u>
Prime time	\$4.00/hr.	\$7.00/hr.
+ Non-prime	\$0.01/offline cit.	\$0.03/offline cit.
	\$3.00/hr.	\$6.00/hr.
+ Non-prime	\$0.01/offline cit.	\$0.03/offline cit.

Under certain conditions as defined for Flat Rate below, if a U.S. subset licensee qualifies for Flat Rate but does not elect that option, then another annual minimum use option is available: \$4/hr. regardless of time of day with no charges for citations printed offline.





b. FLAT RATE OPTION

This option may be used only by institutions/organizations that limit access either to academically affiliated institutions or to corporate members of the organization located within a reasonable geographic distance (normally interpreted as being within the local telephone area code). The charges below include use by one academically affiliated institution in addition to the licensee's use. An annual charge of \$1000 is made for each additional affiliate to which service is provided.

- 1) Licensees receiving data from NLM.  
Current Year - independent of number of records received:

<u>Domestic Monthly Update</u>	<u>Semi- Monthly Update</u>	<u>Non-U.S.</u>
\$10,000	\$13,000	N/A

Note: Semi-monthly updates will consist of all records (100% of file) and all data elements.

Older Data - dependent on number of records received from 1966 up to the current year:

	<u>Domestic</u>	<u>Non-U.S.</u>
76% to total avail. records	\$10,000	N/A
51% to 75% avail. records	\$ 7,500	N/A
26% to 50% avail. records	\$ 5,000	N/A
up to 25% avail. records	\$ 2,500	N/A

Note: In 1990, 25% covers data back through 1985 and 50% back through 1980 if all records are selected.

Licensees qualified for flat rate may elect instead to pay an annual minimum offset by a usage fee of \$4/hr. regardless of time of day.

- 2) Licensees receiving reformatted data from a third party.

Current Year Annual Fee - independent of number of records received:

<u>Domestic</u>	<u>Non-U.S.</u>
\$ 5,000	N/A

Older Data Annual Fee

	<u>Domestic</u>	<u>Non-U.S.</u>
76% to total avail.records	\$ 5,000	N/A
51% to 75% avail.records	\$ 3,750	N/A
26% to 50% avail.records	\$ 2,500	N/A
up to 25% avail.records	\$ 1,250	N/A

Note: In 1990, 25% covers data back through 1985 and 50% back through 1980 if all records are selected.



**2. Redistribution of Data:**

ON LASER OPTICAL DISC

Redistribution of data requires the payment of two fees - the annual license fee and the annual fee for each subscription distributed. If the licensee is already receiving the data to provide online service, this license fee is not paid again.

Licensee Fee, Current Year - Annual

The annual license fee varies with the number of records received.

	<u>Domestic Monthly Updates</u>	<u>Semi- Monthly Updates</u>	<u>Non-U.S. Monthly Updates</u>	<u>Semi- Monthly Updates</u>
76% to total avail. records	\$ 5,000	\$ 8,000	\$ 5,000	\$ 8,000
51% to 75% avail. records	\$ 3,750	N/A	\$ 3,750	N/A
26% to 50% avail. records	\$ 2,500	N/A	\$ 2,500	N/A
up to 25% avail. records	\$ 1,250	N/A	\$ 1,200	N/A

Note: Semi-monthly updates will consist of all records (100% of the file) and all data elements.

License Fee, Older Data - Annual

	<u>Domestic</u>	<u>Non-U.S.</u>
76% to total avail. records	\$10,000	\$10,000
51% to 75% avail. records	\$ 7,500	\$ 7,500
26% to 50% avail. records	\$ 5,000	\$ 5,000
up to 25% avail. records	\$ 2,500	\$ 2,500

Subscription fee - Annual

In addition to the annual license fee, there is a flat rate charge for each subscription regardless of the amount of data or the number of discs.

	<u>Domestic</u>	<u>Non-U.S.</u>
Per subscription -	\$ 100	\$ 125

Note: Domestic licensees pay \$125/subscription if subscriber is non-U.S.; non-U.S. licensees pay \$125/subscription regardless of location of subscriber. If the product incorporates a GRATEFUL MED link to NLM's mainframe computer, the subscription fee is waived.



3. Non-recurring "personal use" subsets:

One-time retrieval from the current year and/or older data; limited to 150,000 citations; no updates.

	<u>Domestic</u>	<u>Non-U.S.</u>
a. Licensee receiving data from NLM	\$ 500	N/A

	<u>Domestic</u>	<u>Non-U.S.</u>
b. Licensee receiving reformatted data from a third party	\$ 250	N/A

4. Additional fees:

- a. A sample tape is available in advance of signing a license agreement upon written request for a fee of \$25.00 for domestic and \$31.25 for non-U.S. requests.
- b. If Current Year MEDLINE (SDILINE) data are supplied in GENER format, there is an extra, annual flat rate fee of \$1,000.
- c. Annual charge for Class Maintained data is assessed as follows to all MEDLINE licensees except those receiving subset data in SDF format.

Complete database replacement copies	\$ 3,000
Changed records only	\$ 1,000

- d. Replacement tape policy is stated on page 7 of this fee schedule.



# The NLM Technical Bulletin

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No. 250

**MEDLARS  
UPDATE**

**SPECIAL  
ISSUE**

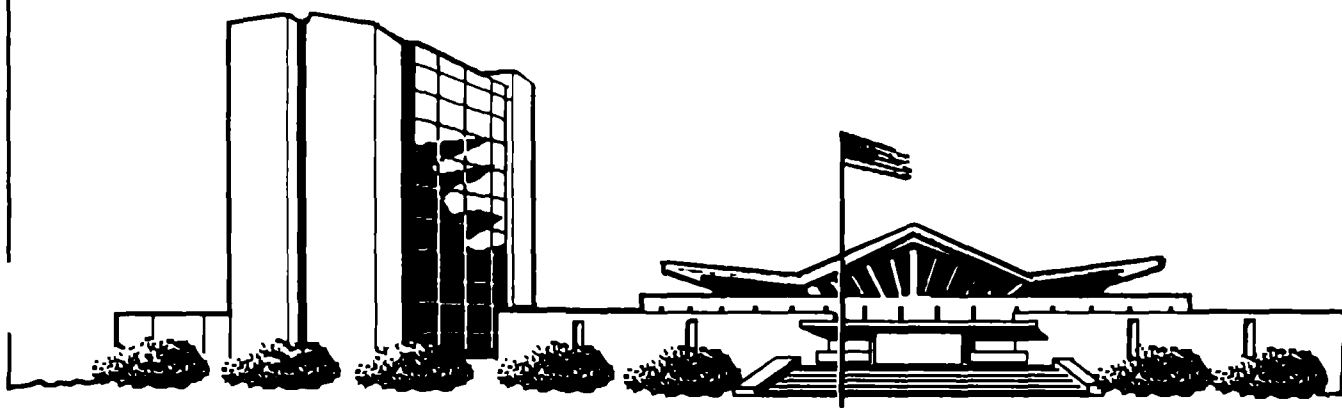
## Introduction

This is the Special Issue of the *Technical Bulletin* prepared each year to help update MEDLARS searchers on changes to databases, systems, software, and important Medical Subject Headings (MeSH) vocabulary concepts. It also includes more news on Multifile Searching and Online Sorting capabilities as well as facts about two new databases, AIDSTRIALS and AIDSDRUGS.

This year, the Special Issue replaces the regular February issue rather than being a supplement. Most of the articles were prepared with the MEDLARS command-language searcher in mind. However, the GRATEFUL MED searcher will also see many items of interest and use.

Considerable information has been derived from materials provided to the NLM indexers during their annual orientation to the new 1990 MeSH vocabulary. NLM staff and others contributed information from their areas of expertise and, because of the large number of contributors, a variety of writing styles and search techniques may be observed.

Continued on page 5



**NLM TECHNICAL BULLETIN FEB 90**

MEDLARS® DATABASE	TOTAL RECORDS	DATES COVERED	DATE LAST UPDATED	LATEST UPDATE TAG
ELHILL® COMPUTER				
AIDSDRUGS	83		23 MAR 90	
AIDSLINE**™	30,155	JAN 80-MAY 90	31 MAR 90	9005(EM)
AIDSTRIALS	235		23 MAR 90	
AVLINE®	20,429	THROUGH 1990	05 APR 90	
BIOETHICS®	29,202	JAN 73-FEB 90	03 FEB 90	9002(EM)
CANCERLIT®	723,069	JAN 63-APR 90	07 APR 90	9004(EM)
CATLINE®	659,908	THROUGH 1990	05 APR 90	
CHEMID	182,003		27 FEB 90	
CHEMLINE®	907,805		10 FEB 89	9002(EM)
CLINPROT®	7,658		19 MAR 90	9003(EM)
DENTALPROJ	784		28 FEB 90	
DIRLINE®	17,046		28 FEB 90	
DOCUSER®	11,853		31 MAR 90	
HEALTH	497,274	JAN 75-MAY 90	07 APR 90	9005(EM)
HISTLINE®	93,555		07 APR 90	9004(EM)
MEDLINE*®	704,164	JAN 88-MAY 90	31 MAR 90	9005(EM)
MED86	651,870	JAN 86-DEC 87	31 MAR 90	
MED83	890,574	JAN 83-DEC 85	17 FEB 90	
MED80	803,401	JAN 80-DEC 82	09 DEC 89	
MED77	775,781	JAN 77-DEC 79	09 DEC 89	
MED72	1,175,567	JAN 72-DEC 76	07 APR 90	
MED66	1,310,492	JAN 66-DEC 71	10 MAR 90	
MESH VOC®	71,882	1990	07 APR 90	
NAME AUTH®	343,849		31 MAR 90	
PDQ®		THRU APR 90	02 APR 90	
POPLINE™	172,111	1970-MAR 90	31 MAR 90	9003(EM)
SDILINE®	43,964	MAY 90	31 MAR 90	9005(EM)
SERLINE®	74,106	1990	07 MAR 90	
TOXLINE®	790,916	1981-1990	31 MAR 90	9003(EM)
TOXLINE65	707,374	PRE 1965-1980	31 MAR 90	
TOXLIT™	801,801	1981-1990	10 FEB 90	9002(EM)
TOXLIT65	586,405	1965-1980	01 SEP 87	

\*N.B. FILE IS UPDATED SEMIMONTHLY; THIS IS PART 2 OF 2.

\*\*N.B. FILE IS UPDATED THREE TIMES A MONTH; THIS IS PART 2 OF 3.

TOXNET COMPUTER

CCRIS	2,190		13 MAR 90
DBIR™	1,268		06 MAR 90
EMICBACK	67,975		02 JUN 89
ETICBACK	46,374		30 JAN 89
HSDB®	4,206		04 APR 90
IRIS	398		02 APR 90
RTECS®	102,941		26 MAR 90
TRI	76,737		20 NOV 89

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An effort has been made to analyze last year's *Technical Bulletin* articles to develop materials on items that warranted elaboration. Some material about new system capabilities that has already been covered in past issues is not repeated here. References to previous issues are made when relevant and back issues will be sent upon request. Also whenever applicable, there will be a reference to the section of the Online Services Reference Manual, 1988 that is considered relevant to the item being discussed, e.g., (Manual 4.7.2) Examples have been included, whenever possible and appropriate, to provide the searcher with a better understanding of various changes.

Requests for clarification on the changes or back issues of the *Technical Bulletin* may be made by calling the MEDLARS Service Desk, M-F, 8:30 a.m. - 5:00 p.m ET, at 1-800-638-8480.

We encourage your feedback concerning the usefulness of the materials or suggestions for future issues. Please let us know what is helpful and what needs to be changed in the future. We value your comments; we hope the update issue can better assist you in the future but we need your input.

Carolyn B. Tilley  
Head  
MEDLARS Management Section  
February 1990

# GRATEFUL MED

## Version 5.0, IBM

The fifth edition of GRATEFUL MED for IBM-PCs and compatible computers will be released by the National Library of Medicine in April. GRATEFUL MED 5.0 offers new users unparalleled ease of use, while continuing to provide experienced users with added versatility and power.

All of GRATEFUL MED's new abilities are described in detail in this article. However, some are such great steps forward they deserve immediate mention:

--The MeSH selection file is now twice as large as previous versions. Thousands of vocabulary terms and their cross-references are available to help you find the best terms for your search.

--An expanded reviewing capability has been added, allowing browsing both backwards and forwards through retrieved references.

--The MeSH terms that GRATEFUL MED suggests according to relevancy judgments can now be easily incorporated into a follow-up strategy using a function key (F7).

Enhancements to GRATEFUL MED have always been made with two ideas in mind: making it easier for new users and offering more options to veteran GRATEFUL MED searchers. With Version 5.0, another set of features has been added that everyone will appreciate--better handling of potential technical problems. Users of GRATEFUL MED 5.0 will find a bevy of new options to help them get their search on track when something doesn't seem to be going correctly.

The accompanying articles on the technical side of GRATEFUL MED 5.0 and on the specific uses of GRATEFUL MED's new features include details on important new capabilities.

This article will take a look at the enhancements that make searching GRATEFUL MED 5.0 easier and more powerful. More detailed explanations of all of these features can also be found in the GRATEFUL MED User's Guide, the "How To" tutorial, and by pressing the <Home> key for help within GRATEFUL MED.

### Escape From Your Search

With 5.0, the <Esc> key will become more important to all users. It's the key you will press to stop your search while connected online to the NLM mainframe computer. In all previous GRATEFUL MED versions, pressing any key on the keyboard while online would signal GRATEFUL MED to disconnect from the NLM computer. Unfortunately, even veteran searchers would hit the keyboard by accident, and new searchers often tried to respond to NLM computer prompts that GRATEFUL MED was actually handling. The <Esc> key is a natural choice for such an operation, and will prevent a search from ending prematurely.

### Smart Reviewing; Smarter Relevancy Judgments

GRATEFUL MED's new reference review features will make handling your search retrieval much easier and provide you with more options while you are doing it. You'll have the option to print or save to a computer file at each reference and you can print or save to a disk file all of your retrieval at any time. And, if you want to go back and look over references again, you can page up to previous references.

Also, while you are printing or filing references, GRATEFUL MED is automatically evaluating your chosen references with an enhanced relevancy algorithm, so that it can provide you with a list of MeSH terms that reflect the subject of your search. However, the same "rules" still apply - at least 3 references must be retrieved and GRATEFUL MED must "see" a pattern of similarity to suggest headings for a future search. Version 5.0 allows you to take advantage of the relevancy judgment feature in some new ways: you can indicate which references are relevant to you without printing or filing, and you can even "de-select" your relevancy choices if you change your mind.

If you choose to edit your search after initially reviewing your retrieval, GRATEFUL MED now allows you to select terms from the list of suggested headings and move them to an INPUT form screen in the same way you select terms from the MeSH (F10) display. Press F7 from a Subject line of the INPUT form screen, and you'll see the list of suggested terms. Just move the cursor to the one you want, press <Enter> to select it, and press <Esc> to return to the INPUT form screen. You'll see your term carried back to the Subject line, in the same way terms are carried back from the MeSH (F10) selection.

And, while you are using these new features, you may notice these additional enhancements:

--Subheadings and main topic (those with an \*) MeSH terms are now included in the Relevancy Judgments.

--Main topic MeSH terms (those with an \*) are now displayed when the references are reformatted by GRATEFUL MED.

--The new capability to page up and down within your retrieval gives you the ability to print and save references to a file in one review session without having to restart.

### Your Next Step In One Step

After you have finished reviewing your results, GRATEFUL MED has always provided various options. For Version 5.0, all of these options have been combined into one menu on the Next Step screen.

This gives you the ability either to edit your search in the current database or a new database, run a MEDLINE search against the Backfiles, return to the Action screen, or quit, in just one step.

### Two MeSH Files for the Price of One

The first thing you will notice about your copy of GRATEFUL MED is that it now comes on five 5-1/4" floppy disks and two 3-1/2" disks. Use whichever one matches the drives on your PC. The main reason for this disk inflation is MeSH. NLM now offers two different MeSH files to use with GRATEFUL MED.

The Standard MeSH file is the preferred version. It is more than twice the size of previous MeSH versions. The 1990 Standard MeSH file contains additional chemical terms, cross-references, and permutations. It provides over 30,000 distinct access points to this useful vocabulary. This file can only be used with a hard disk because it requires 1.5 Mb available space.

The Abridged MeSH file is about half the size of the Standard MeSH. It provides access to MeSH for those with limited hard disk space, or for those with floppy disk-only systems. This MeSH file is essentially similar to the MeSH file that has been provided with previous versions, updated for 1990, of course.

Whether you use the Standard or Abridged MeSH, you will be able to take advantage of several other new enhancements added to help you select the right terms for your search:

--The MeSH display screen has been redesigned, with all available commands listed.

--The notes added to selected headings starting last year have been added to over 50 new terms. (This year they appear in brackets [ ]; last year they were indicated with an 'N.B.', for Nota Bene.)

--All cross references (xr) are followed by the 'original' MeSH term (the term to which they are "mapped"). If there is not enough space to view both terms, arrow keys allow you to toggle the display to see all the information.

--Plus signs (+) used to indicate terms that can be EXPLODED (searched with narrower terms included) are now included for cross references (xr).

### Saving Searches Gets Better

The capability to save a GRATEFUL MED search strategy to use at a later time was added to the program last year. This year we have included an enhancement to this feature. With Version 5.0 you will be able to take a search you saved in one database and run it in a different database. For example, if you run a search in MEDLINE, you can decide to update that search once a month, using the SDILINE database. Just save the MEDLINE search, and after the next SDILINE update, select the saved strategy from the "User's Search List" (USE from the ACTION menu). When you do, GRATEFUL MED will ask you if you want to change databases. Answer "yes," and select SDILINE from the list of databases. You can then run your search against SDILINE without re-typing it. NOTE: The update schedule for MEDLINE and SDILINE is available in the October 1989 *Technical Bulletin* and in Bulletin #25 on the GRATEFUL MED Bulletin Board.

### Searching Gets Better

Enhancements have been made to the way GRATEFUL MED searches these databases:

#### CATLINE & AVLINE

Searching words in a title in CATLINE and AVLINE has been made more specific. When you type entries on the Title Words line, your terms will be searched more narrowly, allowing a more precise retrieval when retrieving books or audiovisuals.

#### DIRLINE

MeSH headings have been added to the DIRLINE database, allowing you to take advantage of the GRATEFUL MED MeSH display by using the F10 key.

### **BBS Stands for Bulletin Board System**

The GRATEFUL MED Bulletin Board (BBS) was introduced last year, and because of the positive response, we are making it easier to use with Version 5.0. First, the GM Bulletin Board will be available over a toll-free 800 number. This makes all bulletin board functions more efficient, especially downloading files (TELENET access will remain as an option as well). Second, GRATEFUL MED allows you to setup your Bulletin Board parameters to log you in automatically, sending your name and GRATEFUL MED Bulletin Board password, just as it does with your User ID/password for the other available services. Continuing previous policy, there is no charge for accessing the GRATEFUL MED Bulletin Board.

### **Search Engine Gets Better Mileage**

This version of GRATEFUL MED comes with a smaller, 'stand-alone' Search Engine. This will allow developers or other advanced users to take advantage of GRATEFUL MED's searching features from another application, using less computer memory.

### **AMA/NET Access Tool!**

Access to the American Medical Association's online service, AMA/NET, is now included with all copies of GRATEFUL MED. The PC-AMANET software can be called up from the GRATEFUL MED ACTION menu. Established AMANET users can use this software to connect to AMA/NET, and new users can use it to get a free 'preview' of this interesting service. The PC-AMANET is not available for the floppy disk installations of GRATEFUL MED.

### **PDQ & TOXNET**

PDQ and TOXNET continue to be available for searching through GRATEFUL MED, although they no longer appear as choices on the ACTION screen. Select DIRECT as your menu choice and then select PDQ or TOXNET. Neither of these systems uses the GRATEFUL MED INPUT form screen, but both have their own user-friendly menu systems.

### **Ready, Get SETUP, and GO!**

The GRATEFUL MED SETUP program, where you enter your User ID code, passwords, phone numbers, and other parameters, has been expanded again for Version 5.0. In fact, it is so much more powerful it cannot be run from within GRATEFUL MED. You'll have to type 'setup' at the DOS prompt the first time

you use GRATEFUL MED to run SETUP and enter the information it needs to run your searches.

Part of the expansion of SETUP includes distinct and separate SETUPS for all of the services available through GRATEFUL MED: MEDLARS/MEDLINE, PDQ, TOXNET and the GM Bulletin Board. The MEDLARS/MEDLINE Setup is the "main" setup; many of the values you enter there are used as defaults for the other setups. Also, all of the additional special "Other Options" are only available in this SETUP.

These Other Options include: Activate a log of your GRATEFUL MED MEDLARS searching, turn on the mouse capabilities, enable an opening draw screen (which is a colorful kaleidoscope for Version 5.0), and "prompt for User ID" to allow for multiple users with separate codes who share one copy of GRATEFUL MED.

See the accompanying article for more technical details on the changes made to the GRATEFUL MED SETUP.

### **Two User's Guides for the Price of One**

In addition to the regular GRATEFUL MED User's Guide (which has been completely revised for Version 5.0), all Version 5.0 packets come with an additional Troubleshooting Guide. This separate publication offers easy-to-find solutions to some of the most common technical problems users have with GRATEFUL MED.

### **"How To" for Those Who Know How**

All copies of GRATEFUL MED will also come with a new "How To" tutorial. This tutorial was introduced with Version 4.0, and has been completely revised for Version 5.0. It is an excellent way to learn GRATEFUL MED searching quickly, even if you have no previous computer experience. It comes on three 5-1/4" floppy disks, or one 3-1/2" disk (you don't need both; use whichever your PC has), and can be run from the floppies or installed in a subdirectory separate from GRATEFUL MED on a hard disk.

The depth of information, along with the sensible organization, make "How To" valuable even for experienced GRATEFUL MED searchers. For Version 5.0, some new features make it even handier. There is a "New Features" section, which demonstrates only the new features added to GRATEFUL MED for Version 5.0. The "How To" index allows you to select a topic and go directly to it, without having to maneuver through the menus.

### **Search by Journal Abbreviation Only**

Many users have asked to be able to search using only the Journal Abbreviation line. This feature is available on Version 5.0. This will be especially useful if you want to print out all the citations from a particular journal. You can also use SDILINE to restrict your search to citations (for the journal of interest) added to MEDLINE during the most recent month.

### **User Feedback**

Many of the enhancements to GRATEFUL MED described above have been made after receiving

suggestions from users. The National Library of Medicine encourages everyone to share ideas or suggestions. Send us a letter, use the post card in the GRATEFUL MED User's Guide, or message us on the GRATEFUL MED Bulletin Board with your ideas. Version 6.0 is only a year away.

The next update for the Macintosh version of GRATEFUL MED is scheduled for later this year.

Be sure to review the accompanying articles, "New GRATEFUL MED Commands, Keyboard Options and Menus" and "GRATEFUL MED, 5.0: Some Technical Details."

## New GRATEFUL MED Commands, Keyboard Options and Menus

GRATEFUL MED 5.0 offers many new options and many new ways of using them. Below is a summary:

### New Keyboard Functions

**<Esc>** Press the <Esc> Key to stop your search while online (connected to the NLM computer). In previous versions, any key would stop the search.

**F7** Press the F7 key while the cursor is on a subject line of the INPUT form screen to select terms from the list of suggested relevant terms generated from the previous search. GRATEFUL MED will carry back any term(s) you select to the SUBJECT line for searching.

**->** and **<-** Use the arrow keys while browsing the MeSH (F10) displays to see the continuation of a long line. These keys give you the ability to view the entire 'original' MeSH heading when you have located a cross reference (xr) that doesn't fit in 80 characters across a screen.

### New Reference Review Commands

**P** Prints the current reference, makes it relevant, and moves to the next reference.

**F** Saves the current reference to a file, makes it relevant, and moves to the next reference.

**R** Marks the current reference "Relevant", and moves to the next reference.

**<Ctrl-P>** Prints all remaining references and makes them all relevant.

**<Ctrl-F>** Saves all remaining references to a file and makes them all relevant.

**<Ctrl-R>** Marks all remaining references "Relevant".

**PgDn** Takes you to the next screen.

**PgUp** Takes you to the previous screen in the current reference.

**<Ctrl-PgDn>** Takes you to the next reference.

**<Ctrl-PgUp>** Takes you to the previous reference.

As with previous versions, <Esc> will exit from the review screens, and <Home> will display the Review help screens.

The above options, in a slightly modified form, are also available while reviewing the results of a Direct search that has not been reformatted by GRATEFUL MED.

### Other New Keyboard Features:

--From any menu, press the first letter of any menu option, and GRATEFUL MED will either perform that option, or in menus where there are multiple choices for one letter, GRATEFUL MED will display all options beginning with the selected letter so you may move the selection bar to your choice.

-- GRATEFUL MED's mouse capabilities now support simultaneous use of the arrow keys while the mouse is enabled. (The mouse is enabled from the Other Options screen only in the MEDLARS/MEDLINE SETUP.)

--A list of network phone numbers can be found for over a dozen major cities by using the F2 Key while entering phone numbers in the GRATEFUL MED SETUP. (A printed list of all available phone numbers is also included in the GRATEFUL MED packet.)

--GRATEFUL MED now supports full use of the <PgUp> and <PgDn> keys in the Help screens (accessible via the <Home> key), allowing you to browse through this extensive, built-in documentation.

In addition to these new abilities, here is a list of some important keyboard functions that remain from previous versions:

**<Home>** Provides help from almost anywhere in GRATEFUL MED.

**F10** Provides the MeSH vocabulary display to choose from while creating a search on the Input Form screen.

**<End>** Mandatory to save entries of selections made in the GRATEFUL MED Setups.

**<Ins>** Toggles choices for various options in the GRATEFUL MED SETUP.

### New Menus

#### Direct Menu

Direct searching is an option on the ACTION screen. It now gives you a menu with the choice of signing in directly (without using the INPUT form screen) to four services: MEDLARS/MEDLINE, PDQ, TOXNET,



and the GRATEFUL MED Bulletin Board. (Note: PDQ, TOXNET and the GRATEFUL MED Bulletin Board can only be used in the Direct mode; there are no "customized" INPUT form screens for these services. PDQ and TRI on TOXNET have user-friendly menu options available for searchers. The GRATEFUL MED Bulletin Board is also menu-driven for ease of use. If you select Direct for MEDLARS/MEDLINE, however, you will need to know and use the ELHILL system command language in order to search and display results.

#### Next Step Menu

This menu replaces the series of questions which were formerly asked separately after a search had been run. From this one screen you have the option to: edit your search in the current or new database, run a MEDLINE search against some or all of MEDLINE's Backfiles, return to the ACTION screen, or quit GRATEFUL MED.

#### Service Selection Menu

This menu is presented to you when you type 'setup' to configure GRATEFUL MED. Use it to indicate which of the four services (MEDLARS/MEDLINE, PDQ, TOXNET, or the GRATEFUL MED Bulletin Board) you want to configure (setup). Each service must be configured separately. Reminder: SETUP must be run from the DOS prompt outside of GRATEFUL MED (e.g., C>setup). Please take the few minutes necessary to configure each so that access will be easily available when you want to search these services in the future.

#### Restart Menu

After you answer Y to "OK to go on to search?" and GRATEFUL MED starts to dial and sign into the NLM computer, you have always had the option to press <Ctrl-Break> to stop the process in case there was a problem, e.g., a busy signal, a bad connection, no answer, etc.

In Version 5.0, if you press <Ctrl-Break> while GRATEFUL MED is running the search, you will be prompted with, "TYPE 'R' TO RESTART or 'E' TO EXIT COMMUNICATIONS (R/e).

Press R and you will receive the RESTART Menu. This menu provides you with the ability to re-connect to the NLM computer using any phone number you have previously entered in the GRATEFUL MED Setup. For example, if you are unsuccessful connecting using your first network choice, press <Ctrl-Break>, press R to restart, and then select another network number to dial when presented with the RESTART Menu. GRATEFUL MED will then dial in using that new number.

Press E and GRATEFUL MED will exit from the communications and return to the ACTION screen.

#### Options and commands removed or changed:

--In Version 4.0, during review of the references, pressing the \* (asterisk) would print or save to file remaining references. It has been replaced by <Ctrl-P>, <Ctrl-F> and <Ctrl-R>. See above.

--Because the options to sign directly into PDQ, TOXNET, and the GRATEFUL MED Bulletin Board have been moved to a sub-menu, it is no longer possible to use these services directly from DOS, i.e., you cannot start GRATEFUL MED with "search/t" to use TOXNET. In addition, "search/p" which used to sign directly into PDQ, now takes you to the PC-AMANET software. See the accompanying article for details.

--CHANGE (run SETUP) is no longer an option on the ACTION screen. The GRATEFUL MED SETUP can no longer be run from within GRATEFUL MED; you must exit first (quit). Hard disk users should type 'setup' at the DOS prompt in the GRATEFUL MED subdirectory; floppy disk users must have their BBS/SETUP disk in drive B: and type 'b:setup' from the DOS A> prompt.

--Special Applications (options in SETUP which allow customization of GRATEFUL MED) have been renamed Other Options in the main SETUP menu (MEDLARS/MEDLINE).

## GRATEFUL MED 5.0: Some Technical Details

Version 5.0 continues the tradition of enhancing the program to make it more powerful yet easier to use. As with any software product, the technical specifications change as the program evolves. Below you will find some of the specific details users should know about.

### Memory Requirements

The Random Access Memory (RAM) needed to run GRATEFUL MED has increased to 384Kb required, with 512Kb recommended. Hard-disk installations using the Standard MeSH should have 1.5Mb available on the disk. If you use the Abridged MeSH file, we recommend 1Mb available space.

### Disk Formats

All Version 5.0 packets come with both the 5-1/4" and 3-1/2" floppy disks for both GRATEFUL MED and the "How To" tutorial. GRATEFUL MED now comes on five 5-1/4" floppies and two 3-1/2" disks. "How To" comes on three 5-1/4" disks and one 3-1/2" disk, like last year.

Both formats are not required; just use whichever disks are compatible with the drives on your computer.

### Installation Changes

Version 5.0 should **not** be installed over any previous version. The User ID, password and phone numbers entered for previous versions must be re-entered for this version. If you don't have a printed copy of your User ID, passwords, and telephone numbers that are now in your Version 4.0, we suggest you type "print blogin" from the DOS prompt of your Version 4.0 subdirectory and get them for input into Version 5.0.

### READ.ME File Available

A READ.ME file has been included with some last minute details that did not make it into the User's Guide. All users should review the information in the READ.ME file before using GRATEFUL MED. Hard disk users can print the READ.ME file by typing 'print read.me' from the DOS prompt in your GRATEFUL MED subdirectory. Floppy disk users should type 'print read.me' from the A> prompt, with the GRATEFUL MED Master Program disk inserted.

### New SETUP Features

The GRATEFUL MED SETUP has undergone numerous changes for Version 5.0:

1. SETUP can no longer be run from within GRATEFUL MED. You must run SETUP before you can use GRATEFUL MED. To do this, type 'setup' from the DOS prompt in your GRATEFUL MED subdirectory. (Floppy disk users should type 'b:setup' from the A> prompt.) Any time in the future that you need to use SETUP to change a parameter (phone numbers, etc.), you must also exit GRATEFUL MED and type 'setup' from DOS.
2. You must configure a separate SETUP for each of the available services you intend to use: MEDLARS/MEDLINE, PDQ, TOXNET, and the GM Bulletin Board. Many of the values you enter for MEDLARS/MEDLINE are saved and become default values when you run the PDQ and TOXNET Setups. In addition, there are "Other Options," special custom parameters (e.g., enable mouse operation) that can only be activated using the MEDLARS/MEDLINE SETUP.

The first time you run SETUP, you will be entered into the MEDLARS/MEDLINE SETUP. After completing this, you have the option to repeat SETUP for the remaining three services.

3. There are now two additional networks available for accessing the NLM computer: InfoNet and CompuServe (TELENET and TYMNET are also available). We recommend that you enter phone numbers for as many networks as you have available in your area. This will help you take advantage of the new "Restart Menu" (see below). A list of all available numbers is included in your GRATEFUL MED packet and quarterly with the *Technical Bulletin*.

Charges for using any of these networks are included in your MEDLARS charges--you do not have to establish a separate account with them. The telecommunications costs are incorporated in the Connect Charge (per hour) line item in the billing statement. Generally, it makes no difference which network you have chosen as your first choice (there is no difference in cost to you) - you want to make sure you have entered more than one number in case of communication difficulties.

4. The GRATEFUL MED Bulletin Board is available only through two methods: on a new toll-free 800 number and on TELENET. The 800 number has already been entered as the default number for your

convenience. We recommend that you use this number first, with a TELENET number as the backup number for the BBS. You will notice a separate toll-free number for Canadian users. As always, there is no charge for using the GRATEFUL MED Bulletin Board.

5. You can now easily change the modem commands that GRATEFUL MED uses to address your modem. "Edit modem commands" is an option from the main SETUP menu. In general, it is not necessary to make any changes here. However, some modems have special requirements. See the GRATEFUL MED Troubleshooting Guide and your modem manual before changing any of these commands.

6. Options for using standard settings for COM3 or COM4 are now available in SETUP.

7. Users of the Everex Evercom 2400 baud modem required a special fix to use Version 4.0. This year, a special batch file must be run before running the GRATEFUL MED Setup. To do this, type 'evr' from the DOS prompt in your GRATEFUL MED subdirectory if you are using a 2400 baud Everex Evercom modem.

### Handling Troublesome Situations

Several changes to GRATEFUL MED make handling problems easier for users:

1. All error messages have been revised, and several have been added to help users diagnose exactly what may be going wrong. If problems occur during the online search session, GRATEFUL MED will indicate whether it is the modem, the network, or the NLM computer which is not operating correctly.

2. A separate Troubleshooting Guide comes with all GRATEFUL MED packets. Users can find solutions to common problems by referencing error messages and problems.

3. A RESTART menu has been added for dialing into the NLM computer using alternate networks with just a few steps. If you experience a problem while logging into the NLM computer, simply press <Ctrl-Break>. GRATEFUL MED will give you the option to exit or restart. If you choose to restart, the RESTART Menu will give you the option to re-dial using another network. It is important to enter more than one network number in SETUP, so that you will have easy access to them from the RESTART menu.

### Floppy Disk Installations

Users who do not have a hard disk on their PC, and must install GRATEFUL MED on floppies, should know the following information:

1. This will be the last version of GRATEFUL MED to run on a system that has only floppy disk drives.

2. You must have four formatted disks ready when you install GRATEFUL MED. The COMMAND.COM file should be on the "SETUP/BBS" disk (last year it was on the Program disk).

3. You should always start GRATEFUL MED by typing 'search b:output' from the A> prompt.

4. You should always have your "OUTPUT" disk inserted in the B: drive before answering "Y" to "OK to go on to search?" from the INPUT form screen.

5. The Standard MeSH is not available on floppies; the Abridged MeSH will be installed automatically.

6. AMA/NET access is not available on floppies.

### Easy, Tiny Editor Included

TED, a tiny easy-to-use text editor is now included with GRATEFUL MED. It may be used in place of EDLIN, the DOS text-editing program. TED will make it much easier to edit the BLOGIN or other GRATEFUL MED parameter files, if any editing is necessary. It can also be used to view or edit files of references you have saved.

TED is published under license from Ziff Communications Co., New York, NY and is the copyright property of Ziff Communications Co. which reserves all rights (Copyright (C) 1989, Ziff Communications Co.).

### Stand-Alone Search Engine

GRATEFUL MED now comes with a separate, stand-alone Search Engine. This program, ENGINE.EXE allows you to use most of GRATEFUL MED's searching power from another program more easily because it requires only 100Kb of RAM (versus 384Kb for the SEARCH.EXE program). The ENGINE program is included for system developers and advanced users who want to take advantage of Search Engine features while running other applications in memory.

**Automatic Backfile Updating**

This is the first version of GRATEFUL MED to be able to adjust automatically to any changes made to the configuration of the MEDLINE Backfiles on the NLM

computer. A special file called "BACKFILE," when invoked, will handle the task. If changes are made to the MEDLINE Backfiles (none are anticipated in the near future), you will be alerted to run the BACKFILE program when you sign on to do a search.

## New ELHILL Command Language Capabilities

### Sorting and Combining Search Results For Online Printing

On November 20, 1989, NLM announced the availability of ELHILL 3.3A, the enhanced MEDLARS ELHILL retrieval software which introduced new system features for online printing. These features allow the ELHILL command language searcher to:

1. Collect retrieval from multiple search statements (which may even come from different databases) before printing online. The word COMB (or the full word COMBINED) is used. Combining will take place only if the individual sets of retrieval add up to a total of no more than 500 records.
2. Sort retrieval from single or multiple search statements (from the same or different databases). This retrieval may be sorted in any desired sequence before printing online. The word SORT (or the full word SORTED) is used for this. Sorting will take place only if the total number of records to be sorted is no more than 500. SORT may be used with COMB.
3. Request system prompts for the sorting or combining options that may be available for specific search statements. The word PROMPT is used for this.

Here are some examples showing a few ways in which these new features may be used:

1. **SPRINT 2 SORT** - to request that the retrieval from Search Statement 2 be sorted before online printing begins.
2. **SPRINT 2,3 SORT** - to request sorting of more than one Search Statement; each set of retrieval will be printed separately.
3. **SPRINT ALL SORT** - to request sorting of retrieval from all previous Search Statements; each set will be printed separately.
4. **SPRINT 2,3, 8-10 COMB** - to request that the retrieval from Search Statements 2,3,8,9, and 10 be collected together before online printing. If the search

statements are from the same database, any duplicate retrieval will be eliminated. (The records must have the same CAN (Computer Assigned Number) in order for the duplicates to be eliminated; COMB will not eliminate duplicate records in TOXLINE if the same cited article is provided by different subfile producers and each citation has a different CAN.)

5. **SPRINT ALL SORT COMB** - to request that the retrieval from all Search Statements be collected together and then sorted before online printing. The Search Statements may be from different databases.
6. **SPRINT 1-6 PROMPT** - to request prompts for sorting/combining options available for all Search Statements, 1 through 6. The four possible options offered by the system are:
  1. Unsorted, separate (one search statement at a time)
  2. Sorted, separate
  3. Unsorted, combined (all search statements together)
  4. Sorted, combined

Depending on the size of the sets of retrieval, all options may not always be available and, therefore, not presented. For example, if the total retrieval of all 6 search statements added together is greater than 500, options 3 and 4 will not be given.

7. **MFS MODE=SORT** - to request a Multifile search in the default "manual mode" with the search results from each database to be sorted. Sets of retrieval with more than 500 records will not be sorted.
8. **MFS MODE=AUTO PROMPT** - to request a Multifile search in the "automatic mode" with requests for prompts for sorting/combining options that are available based on the size of retrieval.

Here are some important points to keep in mind whenever you use the SORT or COMB features:

1. No set of retrieval containing more than 500 postings may be sorted.
2. Sets of retrieval may not be combined if the total number of postings is greater than 500.
3. In order to work with sets of retrieval from multiple databases, be sure to use the command TFILE when switching databases (or perform an MFS search in TFILE or AUTO mode).

4. The command **SPRINT** must be used to sort and/or combine retrieval (unless **MFS** is used). **SORT** and/or **COMB** may not be used with the **PRINT** command.

5. The search statement number(s) to be sorted and/or combined must be designated immediately following the command **SPRINT** with the options following (e.g., **SPRINT 1-7 SORT** or **SPRINT 2,4-6,9 SORT COMB** or **SPRINT ALL PROMPT**). **DO NOT** use the **"SS"** designator that is used with the **PRINT** command when specifying the search statement(s) to be sorted and/or combined ( e.g., **DO NOT** type **SPRINT SS 1-7 SORT**).

6. Note that only online printing is allowed from mixed-database lists. A sorted list may be printed offline provided it is from a single database.

7. Combining retrieval from multiple Search Statements eliminates duplicates within one database (works like the Boolean **or**), but it will not eliminate duplicates across databases. If a citation is physically entered into one database more than once, then the program does not recognize the separate records as duplicates.

8. After sorting is requested, **ELHILL** will prompt for the sort specifications desired. That is, which data element(s) are to be used for the sort. It is a good idea to use precoded format sort specifications such as **AUTI** or **JNL** when sorting or combining retrieval from different databases. As a general rule, do not attempt to sort or combine retrieval from databases that are dissimilar. Please refer to page 8 of the December 1989 *Technical Bulletin* for more information about precoded sort formats.

9. **DO NOT** enter the sort specification (i.e., the data element on which you want the sort to take place) on the **SPRINT** command line. For example, **DO NOT** enter **SPRINT ALL SORT=AU**. Instead, enter **SPRINT ALL SORT** and then type **AU** in response to the **ELHILL** prompt that follows for sort specifications.

10. A sort by Date of Publication (**DP**) is fine. However, keep in mind that the year sorts chronologically and the month sorts alphabetically. For example, all the 1989's will be grouped together; however, 1989 **APR** will come before 1989 **JAN**.

11. If you request a sort on a data element that does not reside on all records being sorted, those records that do not contain the data element will be printed first. For example, when requesting a sort on Author (**AU**) in **MEDLINE**, those anonymous author records lacking

the **AU** data element will print first.

12. IN **CATLINE** and **AVLINE** there are special "behind the scenes" rules that govern the sorting of the Personal Name (**PN**) field that may cause your sort to appear as if it did not work - when in fact it did. This will usually occur with multiple word surnames such as Joan Van Allen. This name may be sorted after Joan Van Riek in your printout. In these cataloging files, sorting specifications are supplied by the cataloger as the record is being created. There are rules that determine how a last name should be filed (e.g., under a prefix, under another part of the surname, or treating a multiple word surname as though it were written as one word). The online sort program recognizes these cataloging filing specifications when they occur in a record and uses them. If the cataloging instructions indicate that "Van Allen" is to be filed as "VanAllen" (with no space) and Van Riek is to be filed as is (with a space), then Joan Van Allen will follow Joan Van Riek in your online print because "nothing" files before "something." There are other situations where this may occur also.

13. The command **SHOW COST** will not present accurate statistics if you have combined retrieval from different databases. Instead, use the command **SHOW COST TOTAL** to obtain an estimate of online costs incurred during your total search session.

14. Always answer the system questions or prompts that appear when using **SPRINT**. If you decide not to sort or combine, enter **SPRINT CANCEL** and type in a new **PRINT** or **SPRINT** command.

The October 1989 *Technical Bulletin* contains two articles about these new capabilities. The first, beginning on page 8, briefly describes the features and shows several sample search interactions making use of the features. The second article, starting on page 25, provides a more detailed narrative of the features. Both articles are also included online and can be seen by entering **FILE INFORM** and typing **EXPLAIN WALK THROUGH** (to see most of the first article) and **EXPLAIN NEW FEATURES** (to see the entire second article). Be sure to enter **FILE INFORM** to save money because these articles are long and you will not be charged for characters sent in that database.

NLM is offering the use of non-billed codes/passwords for a limited time (six hours usable over a one week period) to searchers who would like to practice these features. Contact **MMS** to request these codes.

# MEDLINE and its Backfiles

## FILE SEGMENTATION

There has been a major redesign of the ELHILL architecture which now allows the existence of larger databases. As a result, there was no change this year in

the configuration of the MEDLINE Backfiles. Also, MEDLINE has resumed being a 2- growing-to-3-year file. The 1990 configuration of MEDLINE and its backfiles is shown in Figure 1.

<u>Database Name</u>	<u>Database Alias</u>	<u>Dates of Coverage</u>	<u>Approximate Number of Records</u>
MEDLINE	MED	1988-90	704,164
MED86	M86, BACK86, B86	1986-87	651,870
MED83	M83, BACK83, B83	1983-85	890,574
MED80	M80, BACK80, B80	1980-82	803,401
MED77	M77, BACK77, B77	1977-79	775,781
MED72	M72, BACK72, B72	1972-76	1,175,567
MED66	M66, BACK66, B66	1966-71	1,310,492

Figure 1

## UPDATE SCHEDULE

MEDLINE itself is updated two times a month at NLM. The update schedule is republished at the end of this article. These more frequent updates mean that the data are online for your use more quickly. SDILINE

remains on a monthly update schedule (also republished at the end of the article) as do the SDILINE Automatic SDIs. For the most current data, you'll want to search MEDLINE. For example, the update schedule shows the following information for the June 1990 update:

<u>ENTRY MONTH</u>	<u>UPDATED MEDLINE AVAILABLE</u>	<u>DATE OF ENTRY (DA) RANGE</u>
9006 (EM)		
Part 1	APR 14	FROM 900330 to 900412 (DA)
Part 2	APR 28	FROM 900413 to 900426 (DA)

Figure 2 - Update Schedule

If you search on April 16 and want citations from the most recent update, simply combine your strategy with: 'AND 9006 (EM)'.

If you want to repeat that same search after April 28 to retrieve only the new 9006 (EM) citations added with the Part 2 semi-monthly update, then combine your strategy with: 'AND 9006 (EM) AND FROM 900413 TO 900426 (DA)'.

You need to range on Date of Entry only if you are trying to isolate citations added with the second portion of an Entry Month.

### YEARS OF COVERAGE

As part of this past year-end processing routine, NLM moved citations from MEDLINE into the appropriate backfile on the basis of the year of publication (YR) of the cited article. Throughout the indexing year, though, NLM continues to index journal issues that were previously missed or delayed for various reasons. These citations are added to MEDLINE regardless of their year of publication. Each December, NLM 're-levels' MEDLINE and moves the citations into the correct backfile for the year of publication. The advantages of re-leveling include:

1. Files are oriented by publication year (not year of indexing); and

2. You have the ability to pinpoint the file you need in order to search for a citation to an article you know you want to read or need to verify for an interlibrary loan request.

Newer MeSH headings will often find retrieval in older backfiles. This situation results when older publications are received, indexed with current MeSH, and then moved to the appropriate backfile in December. For example, CALCIUM CHANNELS was introduced as a MeSH heading in 1989. Yet, in Figure 2, an interaction showing retrieval with the term CALCIUM CHANNELS is reproduced from MED86 (1986-87).

There is another important point here. While it is true that these six citations are indexed to CALCIUM CHANNELS and are on-target retrieval, there are undoubtedly more citations in this backfile on this subject. This is because most of the citations in MED86 were indexed using in 1986 and 1987 when CALCIUM CHANNELS was not an available MeSH heading. Therefore, it is a good idea to research the terminology for your subject and note any time limitations on MeSH headings. Adjust your strategy to include the headings used prior to the introduction of current headings. These precursor headings can be found in the PI (Previous Indexing) field in the online MeSH Vocabulary File. See Figure 3.



```

For example:

file mesh

PROG:
YOU ARE NOW CONNECTED TO THE MESH VOCABULARY (1990) FILE.

SS 1 /C?
USER:
calcium channels

PROG:
MM (CALCIUM CHANNELS) (2)
    1 CALCIUM CHANNELS (II)
    2 CALCIUM CHANNELS (MH)
SPECIFY NUMBERS, ALL, OR, NONE-

USER:
2

PROG:
SS (1) PSTG (1)

SS 2 /C?
USER:
prt include pi, hn, ol
PROG:

1
MH - Calcium Channels
DC - 1
MN - A11.507.301
PI - Calcium (78-88)
PI - Ion Channels (78-88)
HN - 89
    
```

- HN is the history note field showing when the term was introduced.
- OL is the online note field; it is not present in every record. It is not in this record.

Figure 3

In this case, the PI headings are CALCIUM and ION CHANNELS. The search shown in Figure 4 illustrates the much larger retrieval using the headings used for indexing this concept during the earlier years. If this search strategy results in too much non-related retrieval,

you may want to 'AND' some appropriate Text Word (TW) with the set. Not every search warrants intensive vocabulary research. The intent here is to let you realize some of the subtleties and sophisticated techniques that may be useful in online searching.

```
file b86

PROG:
YOU ARE NOW CONNECTED TO THE BACK86 (1986 - 87) FILE.

SS 1 /C?
USER:
calcium and ion channels

PROG:
SS (1) PSTG (1394)
```

Figure 4

#### ONE FINAL WORD

The grand total of files in the MEDLINE family continues to be seven. This still exceeds the number of databases that can be searched in one OFFSEARCH, which is six. The following options are available to you if you need to search all seven files:

1. Use the MFSEARCH command to conduct a multifile search.
2. Consider using SAVE or SAVESEARCH to record

your strategy; then, access each file, run the search name, and print the results.

3. Execute an OFFSEARCH while connected to the MEDLINE file, specifying only the Backfile names for the FILES? question. Finish the OFFSEARCH and then order an offline print or print online for the MEDLINE retrieval.
4. Do two OFFSEARCHes and divide up the file names. Recommended only if your strategy is simple.

## More Author Addresses Online

The Address (AD) field containing author affiliation information was introduced in 1988 for MEDLINE and HEALTH citations from core medical journals. Beginning with journals with a publication year of 1990, author affiliation address information will also be included for some "Special List" journals, and certain non-English, non-core journals for which this information was not included in the past. The journal titles affected by this change include those in Special Lists Dental and Nursing for MEDLINE, and Special List Health for HEALTH. Special list journals are not indexed for the printed Index Medicus, but are included in the above-named online files (see Manual 11.3.21 for a more detailed explanation of Special List journals). As in previous years, author affiliations will still not be available in citations having any of the following rubrics in the TI (Title) field: [editorial], [letter], [interview], [news], or [classical article].

This policy is a broadening of scope to include additional Address (AD) information that was not captured before. The AD field is not directly or Text Word searchable, but may be STRINGSEARCHed. It should be noted that the information has not been standardized and merely reflects what appears in the published article. Remember to account for variations in wording when you STRINGSEARCH this field, e.g.: Maryland vs. MD. More address data should benefit searchers and users of MEDLARS data by linking the author to his institution. Currently the AD prints automatically only with the PRT DL command in direct searching. You may wish to add the field in your routine work by using the INCLUDE option: PRT AR INCLUDE AD. GRATEFUL MED, however, automatically includes the Address data whenever it occurs.

## AIDSLINE Update

### REBUILDING

AIDSLINE was rebuilt with 1990 MeSH and made available on February 1, 1990. With this regeneration the entire file, containing about 28,000 citations and made up of subfiles from MEDLINE, the HEALTH PLANNING & ADMINISTRATION file (HEALTH) and CANCERLIT, is searchable with the 1990 MeSH Vocabulary.

Title Field Text Words (TF) searching is now available in AIDSLINE. This capability allows the searcher to limit Text Word retrieval to the Title (TI) field. Using title-only Text Words (TF) can be a helpful search technique to limit retrieval. See Figure 1 for a comparison of searching using TFs and TWs using the ELHILL command language. Figure 2 illustrates title-only Text Word searching in GRATEFUL MED.

The search strategy used to rebuild AIDSLINE was expanded to include new 1990 AIDS-related MeSH headings. The current AIDSLINE strategy used for 1990 updates is reproduced in Figure 3.

### OVERVIEW

AIDSLINE, as originally built, contained only records from MEDLINE and became available in July 1988.

AIDSLINE was enhanced with AIDS-related citations from the HEALTH file in April 1989 and AIDS-related citations from CANCERLIT in July 1989.

AIDSLINE is charged at MEDLINE rates.

GRATEFUL MED Version 5.0 includes AIDSLINE as

a menu choice with a separate INPUT form screen. Choose 'OTHER - Search other databases' from the ACTION screen and then select AIDSLINE from the subsequent menu.

AIDSLINE is updated three times a month, twice with MEDLINE citations and once with those from HEALTH and CANCERLIT; about 750 citations are added each month.

Automatic SDI current awareness service became available on AIDSLINE in July 1989 with the 8908 entry month (EM).

### FUTURE PLANS

The meeting abstracts from the Fifth International Conference on AIDS held in Montreal in June 1989 should be available on AIDSLINE this spring. NLM will be adding the complete meeting abstracts from this international meeting each year. AIDS-related meeting abstracts from several other conferences will also be added to AIDSLINE beginning in 1990. These meetings include the Symposium on Nonhuman Primate Models for AIDS and the annual meeting of the American Society for Microbiology.

Also during 1990, NLM plans to enhance AIDSLINE with AIDS-related citations from several other MEDLARS files: AVLINE, BIOETHICSLINE, CATLINE, and POPLINE. These citations will be included in AIDSLINE following a phased implementation plan, adding citations from one file at a time.

NLM will continue to evaluate other sources of published literature for possible inclusion in AIDSLINE.



The search strategy used for 1990 updates of AIDSLINE is reproduced below.

SS1 = HTLV VIRUSES OR HIV OR HIV-1 OR HIV-2 OR HTLV-I OR HTLV-II OR  
SIMIAN RETROVIRUSES OR SIMIAN SARCOMA VIRUSES OR SIV OR STLV-I OR  
STLV-II OR HTLV ANTIBODIES OR HIV ANTIBODIES OR HTLV-I ANTIBODIES OR  
HTLV-II ANTIBODIES OR HTLV ANTIGENS OR HIV ANTIGENS OR  
HIV ENVELOPE PROTEIN GP41 OR HIV ENVELOPE PROTEIN GP120 OR  
HTLV-I ANTIGENS OR HTLV-II ANTIGENS OR HTLV INFECTIONS OR  
HIV INFECTIONS OR ACQUIRED IMMUNODEFICIENCY SYNDROME OR  
AIDS DEMENTIA COMPLEX OR AIDS-RELATED COMPLEX OR  
HIV SEROPOSITIVITY OR HTLV-I INFECTIONS OR  
LEUKEMIA-LYMPHOMA, T-CELL, ACUTE, HTLV-I-ASSOCIATED OR  
PARAPARESIS, TROPICAL SPASTIC OR HTLV-II INFECTIONS OR  
LEUKEMIA, T-CELL, HTLV-II-ASSOCIATED OR  
RECEPTORS, HIV OR ANTIGENS, CD4 OR HIV SEROPREVALENCE

SS2 = (TW) HIV OR HTLV AND III TW OR LYMPHADENOPATHY TW AND  
ASSOCIATED AND VIRUS OR AIDS AND RELATED AND COMPLEX OR LAV OR  
HUMAN AND IMMUNODEFICIENCY AND VIRUS OR HUMAN AND T AND CELL AND  
LYMPHOTROPIC AND VIRUS AND III OR AIDS AND ALL RETROVIR: OR  
ARV OR HUMAN AND T AND CELL AND LEUKEMIA AND VIRUS AND III OR  
HIV AND I OR HIV AND II OR HIV1 OR HIV2 OR HIVI OR HIVII OR  
HIV-1 OR HIV-2

SS 3 = (TA) AIDS OR AIDS RES HUM RETROVIRUSES OR  
J ACQUIR IMMUNE DEFIC SYNDR (TA)

SS 4 = 1 OR 2 OR 3

Figure 3

## AIDSTRIALS and AIDSDRUGS

In September 1989, NLM added two new AIDS-related databases to the MEDLARS family. Both of these databases are factual, rather than bibliographic.

### AIDSTRIALS

AIDSTRIALS contains information about clinical trials of agents undergoing evaluation for use against Acquired Immunodeficiency Syndrome (AIDS), HIV infection, and AIDS-related opportunistic infections and malignancies. The AIDSTRIALS records include the title of the trial, the trial purpose or a brief summary of the trial, the agent(s) being studied, patient eligibility criteria, the status of the trial (whether it is open to new patients), and location at which the study is being conducted. In addition, some records contain details of the drug regimen used.

The information in AIDSTRIALS comes from two sources. The National Institute of Allergy and Infectious Diseases (NIAID) provided detailed information about all the AIDS-related clinical trials funded by the National Institutes of Health (NIH). The Food and Drug Administration (FDA) provided information about all other clinical trials which are in the efficacy stage (testing for the effectiveness of the agent). This group of trials includes those sponsored by private organizations such as pharmaceutical companies.

### AIDSDRUGS

A companion database, AIDSDRUGS, contains information about the agents being tested in the clinical trials described in AIDSTRIALS. The AIDSDRUGS records include the various names by which the agents

are known (including generic and trade names, standard chemical name, if one exists), pharmacology, contraindications, adverse reactions, major use of the agent, manufacturer, and physical/chemical properties. Up to ten bibliographic references are supplied to make it easier for users to locate additional information about the agents. The data included in AIDSDRUGS are taken from published sources such as handbooks and compendia, as well as from the protocols themselves. For a more complete description of these two databases, including sample searches and the unit record, see the July 1989 *Technical Bulletin*, pp.17-27.

### AIDS Hotline

NLM is making these two databases available as part of the Public Health Service AIDS Information effort. The Food and Drug Administration, the National Institute of Allergy and Infectious Diseases, and NLM have joined together to provide access to information about AIDS-related clinical trials and treatments. The same information contained in the AIDSTRIALS and AIDSDRUGS databases is also available through a toll-free telephone hotline, 1-800-TRIALS-A, which is staffed with reference specialists 9 AM - 7 PM ET, M-F. By making this information available online, NLM hopes to assist in the efforts to make access to clinical trials easier. Health professionals treating patients who are infected with HIV can easily access the NLM computer system and identify trials which are suitable for their patients. In addition, investigators who are interested in designing clinical trials, may use the AIDSTRIALS database to review protocol methodology. Planning is already underway to make these databases more easily accessible through GRATEFUL MED.

## AVLINE Update

### MEDIA DESCRIPTORS USED FOR SEARCHING COMPUTER SOFTWARE IN AVLINE

NLM recently revised the computer software terms used in the Media Description (MD) field in AVLINE to conform more strictly to those listed in Guidelines on Subject Access to Microcomputer Software (Chicago : American Library Association, 1986). The terms now in use are listed below and may be entered for searching followed by the qualifier (MD). Citations in the AVLINE database were corrected for the 1990 version of the file (available on December 11, 1989).

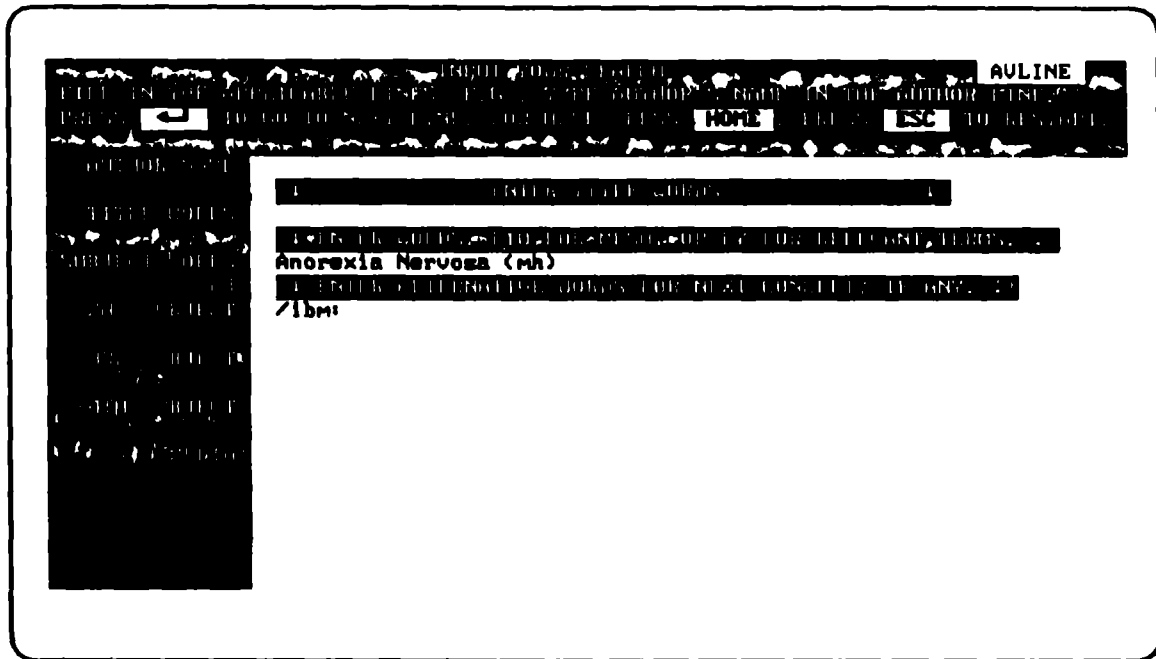
APPLE IIC (COMPUTER)  
APPLE IIE (COMPUTER)  
APPLE II PLUS (COMPUTER)  
AT&T PC 6300 (COMPUTER)  
APPLE II (COMPUTER)  
BBC B COMPUTER  
COLUMBIA DATA (COMPUTER)  
COMPAQ PORTABLE COMPUTER  
EAGLE COMPUTERS  
FRANKLIN ACE 1000 (COMPUTER)  
IBM PCJR (COMPUTER)  
IBM PERSONAL COMPUTER  
IBM PERSONAL COMPUTER AT  
IBM PERSONAL COMPUTER PS/2  
IBM PERSONAL COMPUTER XT  
MACINTOSH (COMPUTER)  
NCR (COMPUTER)  
NEC PC 8200 (COMPUTER)  
TANDY 2000 (COMPUTER)  
TRS-80 MODEL I (COMPUTER)  
TRS-80 MODEL II (COMPUTER)  
TRS-80 MODEL III (COMPUTER)  
UNITRON

For a complete listing of terms available when searching for Media Description (MD) tags for other types of non-print media (e.g., black and white, color, 4x6 in), see the AVLINE chapter of the Manual 9.5.44 on pages 9-22. Also please annotate this same section with the revised MD values given above.

On the following pages is a sample GRATEFUL MED search on AVLINE for IBM computer software on the subject anorexia nervosa.



Sample search of AVLINE for IBM computer software concerning ANOREXIA NERVOSA



If you press <HOME> while cursor is on the MEDIA the screen shown below appears.

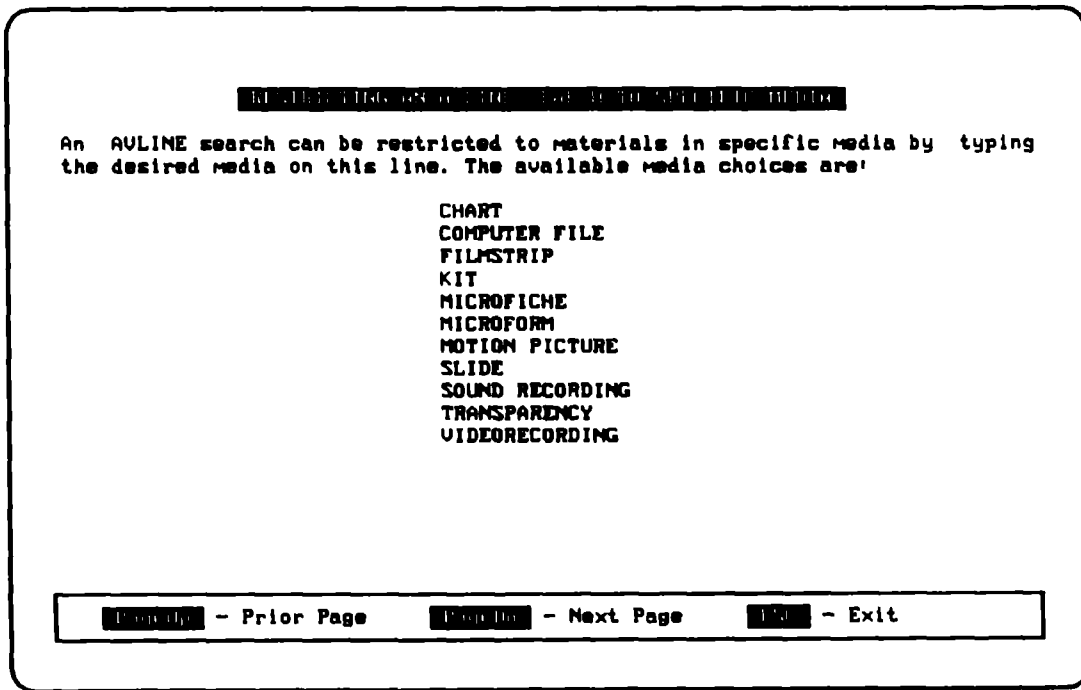
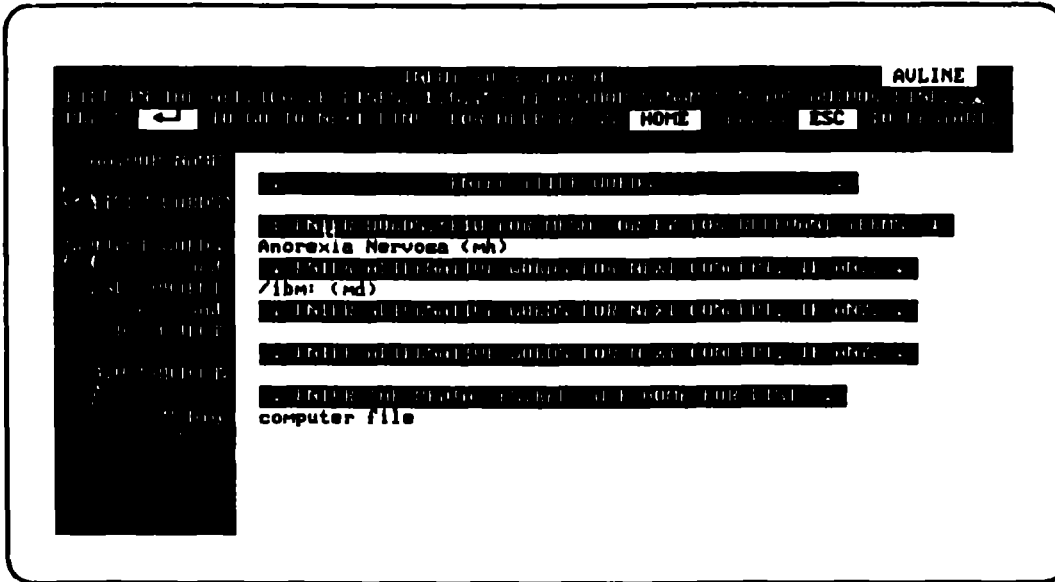


Figure 1A

If you select MEDIA from the previous screen, the media will appear on the INPUT screen.



This last screen shows one of two citations retrieved with this strategy.

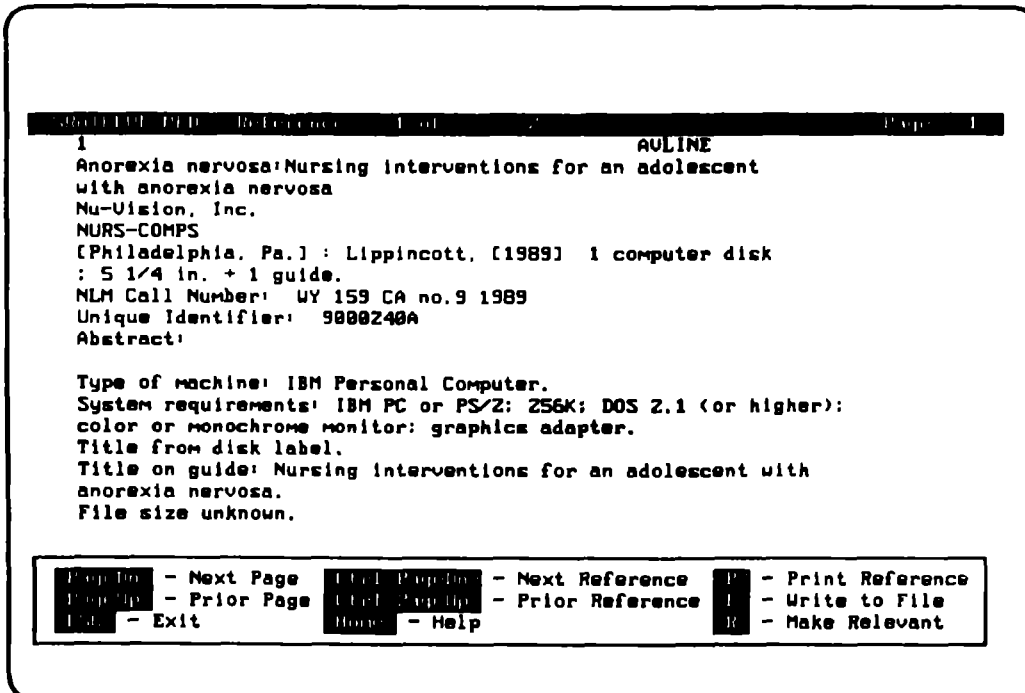


Figure 1B

## BIOETHICSLINE Update

### DATABASE UPDATE

At the end of 1989, the BIOETHICSLINE (short name: BIOETHICS) database contained 28,799 citations to journal articles, books, legal documents, and other publications concerned with ethical and related legal and public policy issues in health care and biomedical research. The database is updated bimonthly, usually during the second week of the month, in February, April, June, August, October, and December.

BIOETHICS is produced by the Bioethics Information Retrieval Project at the Kennedy Institute of Ethics (KIE), Georgetown University, Washington, DC 20057. Questions about the content of the file or about subject searching strategies may be addressed to Joy Kahn, Cecily Orr, or Frances Abramson at KIE, telephone 202-687-3885 or 1-800-MED-ETHX.

The Document Delivery Service (non-automated) for materials cited in BIOETHICS can be contacted at telephone numbers 202-687-6738 or 1-800-MED-ETHX. The base fee is \$5.00 per article for up to 10 pages and .15 cents/page for each page over 10. The basic fee includes first-class mailing costs; other methods of expedited delivery (i.e., faxing, courier services, etc.) are available at additional cost.

### PUBLICATIONS UPDATE

Volume 15 of the Bibliography of Bioethics, the print version of BIOETHICS, was published in November 1989. The largest volume to date in this annual series, Volume 15 is 601 pages long and contains 2,400 citations, many with abstracts. It is available for \$45 (\$50 outside the U.S., Canada, and Mexico) from the Bibliography of Bioethics, Kennedy Institute of Ethics, Georgetown University, Washington, DC 20057.

The current edition of the Bioethics Thesaurus (1989; 45 pages), the controlled vocabulary of Keywords used to index and search BIOETHICS, is included in the Bibliography. It can also be purchased separately, for \$5, from the KIE. (Prices include shipping and handling for prepaid orders; add \$2 per order if payment is not enclosed.)

### NEW KEYWORDS

Ten new Keywords (KW) were added to the Bioethics Thesaurus during the past year. Consult the 1989 edition of the Thesaurus for annotations (including MeSH maps, explanatory and historical notes, and broader/narrower/related term relationships) for the following new Keywords: AMERICAN INDIANS, COMPUTERS, CONTACT TRACING, DECISION ANALYSIS, GENOME MAPPING, HISPANIC AMERICANS, MULTIPLE PREGNANCY, PATIENT CARE TEAM, PHYSICAL RESTRAINT, and TISSUE DONATION.

### CATEGORIZED LISTS OF KEYWORDS

An effort is underway by the Bioethics Information Retrieval Project, in consultation with the MeSH Section at NLM, to develop a hierarchical display of Bioethics Thesaurus Keywords in 14 categories. Current drafts of these categorized lists are appended.

Input is sought on whether the current arrangement of terms in these lists will help you find Keywords for subject searches of BIOETHICS. Please try using the categorized lists and, if you have any suggestions for changes, contact Joy Kahn at the Kennedy Institute of Ethics, Georgetown University, Washington, DC 20057, 202 687-6806 or 1-800-MED-ETHX.

**CATEGORIZED LISTS OF  
BIOETHICS THESAURUS (1989) KEYWORDS  
DRAFT**

- A. BIOETHICS, PROFESSIONAL ETHICS, PHILOSOPHY, AND RELIGION
- B. PATIENT CARE AND THE PROFESSIONAL PATIENT RELATIONSHIP
- C. HEALTH CARE AND PUBLIC HEALTH
- D. GENETICS, REPRODUCTION, AND ABORTION
- E. DEATH, EUTHANASIA, AND ALLOWING TO DIE
- F. MENTAL HEALTH THERAPIES AND BEHAVIOR CONTROL
- G. BIOMEDICAL AND BEHAVIORAL RESEARCH
- H. POPULATION GROUPS
- I. LAW, GOVERNMENT, AND PUBLIC POLICY
- J. SOCIAL AND PSYCHOLOGICAL FACTORS
- K. DISCIPLINES, EDUCATION, AND PROFESSIONAL PRACTICE
- L. BODY PARTS, DISEASES, AND PROCEDURES AND TECHNIQUES
- M. TAGS AND GENERALITIES
- Z. GEOGRAPHIC NAMES

Prepared by the Bioethics Information Retrieval Project, Kennedy Institute of Ethics, Georgetown University, Washington, DC 20057 under NLM Contract NO1-LM-8-3522. Comments on this draft should be directed to Joy Kahn, Senior Bibliographer, 800-MED-ETHX or 202/687-6806.

**A. BIOETHICS, PROFESSIONAL ETHICS, PHILOSOPHY, AND RELIGION**

ETHICS

**BIOETHICS**

**BIOETHICAL ISSUES**

**PROFESSIONAL ETHICS**

**MEDICAL ETHICS**

**NURSING ETHICS**

Special Concepts in Professional Ethics *[not a Keyword]*

**CODES OF ETHICS**

**CONFLICT OF INTEREST**

**CONSCIENCE**

**HUMANISM**

**MISCONDUCT**

**FRAUD**

**VIRTUES**

Special Concepts in Bioethics *[not a Keyword]*

**ETHICAL REVIEW**

**ETHICISTS**

**ETHICS COMMITTEES**

**INTERDISCIPLINARY COMMUNICATION**

**NORMATIVE ETHICS**

**DEONTOLOGICAL ETHICS**

**TELEOLOGICAL ETHICS**

**UTILITARIANISM**

Special Concepts in Normative Ethics *[not a Keyword]*

**ALTRUISM**

**BENEFICENCE**

**COMMON GOOD**

**ETHICAL RELATIVISM**

**INTENTION**

**DOUBLE EFFECT**

**JUSTICE**

**MORAL OBLIGATIONS**

**INSTITUTIONAL OBLIGATIONS**

**OBLIGATIONS OF SOCIETY**

**OBLIGATIONS TO SOCIETY**

**MORAL POLICY**

**ETHICAL ANALYSIS**

**NATURAL LAW**

**PATERNALISM**

**RIGHTS**

**HUMAN RIGHTS**

**FREEDOM**

**SELF DETERMINATION**

**VIRTUES**

**RELIGIOUS ETHICS**

**CHRISTIAN ETHICS**

**EASTERN ORTHODOX ETHICS**

**PROTESTANT ETHICS**

**ROMAN CATHOLIC ETHICS**

**ISLAMIC ETHICS**

**JEWISH ETHICS**

Special Concepts in Religious Ethics *[not a Keyword]*

**DOUBLE EFFECT**

**LOVE**

**NATURAL LAW**

**SUFFERING**

**VALUE OF LIFE**

**MORALITY**

**MORAL DEVELOPMENT**

**CONSCIENCE**

**VALUES**

**QUALITY OF LIFE**

**SOCIAL WORTH**

**TRUST**

**VALUE OF LIFE**

**PERSONHOOD**

**HUMAN CHARACTERISTICS**

**SELF CONCEPT**

**PHILOSOPHY**

**RELIGION**

**CLERGY**

Named Religions and Religious Groups *[not a Keyword]*

**CHRISTIAN SCIENCE**

**JEHOVAH'S WITNESSES**

**JEWS**

**PROTESTANTISM**

**ROMAN CATHOLICISM**

**PASTORAL CARE**

**RELIGIOUS BELIEFS**

**RELIGIOUS ETHICS**

**CHRISTIAN ETHICS**

**EASTERN ORTHODOX ETHICS**

**PROTESTANT ETHICS**

**ROMAN CATHOLIC ETHICS**

**ISLAMIC ETHICS**

**JEWISH ETHICS**

Special Concepts in Religious Ethics *[not a Keyword]*

**DOUBLE EFFECT**

**LOVE**

**NATURAL LAW**

**SUFFERING**

Bold type indicates "major issue" Keywords

VALUE OF LIFE  
RELIGIOUS HOSPITALS

THEOLOGY  
SPECIESISM

**B. PATIENT CARE AND THE PROFESSIONAL PATIENT RELATIONSHIP**

<p>PATIENT ADVOCACY PATIENTS' RIGHTS CONFIDENTIALITY DISCLOSURE     <b>PATIENT ACCESS</b> <i>[to medical records]</i> INFORMED CONSENT PRIVACY TREATMENT REFUSAL PATIENT CARE BLOOD TRANSFUSIONS DIAGNOSIS EMERGENCY CARE MEDICAL RECORDS     CONFIDENTIALITY     <b>PATIENT ACCESS</b> PATIENT CARE TEAM PHYSICAL RESTRAINT PROGNOSIS REFERRAL AND CONSULTATION SELECTION FOR TREATMENT SURGERY     CESAREAN SECTION     GHOST SURGERY     TRANSPLANTATION         <b>ORGAN TRANSPLANTATION</b> TERMINAL CARE WITHHOLDING TREATMENT <i>Practitioners and Patients [not a Keyword]</i> HEALTH PERSONNEL     DENTISTRY     NURSES         NURSE MIDWIVES     PATIENT CARE TEAM     PHARMACISTS     PHYSICIANS         INTERNSHIP AND RESIDENCY     SOCIAL WORKERS PATIENTS     BURN PATIENTS     CHRONICALLY ILL     CRITICALLY ILL     MENTALLY ILL</p>	<p>TERMINALLY ILL TRANSPLANT RECIPIENTS <b>PROFESSIONAL PATIENT RELATIONSHIP</b> <b>NURSE PATIENT RELATIONSHIP</b> <b>PHYSICIAN PATIENT RELATIONSHIP</b> <i>Special Issues in the Professional Patient Relationship [not a Keyword]</i> COERCION COMMUNICATION CONTRACTS <b>CONFIDENTIALITY</b>     CONTACT TRACING     <b>PARENTAL NOTIFICATION</b>     PRIVILEGED COMMUNICATION DECEPTION DECISION MAKING     <b>ADVANCE DIRECTIVES</b>     <b>LIVING WILLS</b>     <b>ETHICS COMMITTEES</b>     <b>INFORMED CONSENT</b>         PRESUMED CONSENT         REQUIRED REQUEST         <b>THIRD PARTY CONSENT</b>             <b>PARENTAL CONSENT</b>             <b>SPOUSAL CONSENT</b> <i>Topics Related to Informed Consent [not a Keyword]</i>         COMPETENCE         COMPREHENSION         CONSENT FORMS         DISCLOSURE         RECALL         <b>TREATMENT REFUSAL</b>         PATIENT PARTICIPATION DEHUMANIZATION DISCLOSURE HUMANISM PATERNALISM SELF DETERMINATION SOCIAL DOMINANCE TRUST</p>
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Bold type indicates "major issue" Keywords

**C. HEALTH CARE AND PUBLIC HEALTH**

<p>ACQUIRED IMMUNODEFICIENCY SYNDROME              HIV SEROPOSITIVITY          ADVISORY COMMITTEES  <b>BIOMEDICAL TECHNOLOGIES</b>              DRUGS              MEDICAL DEVICES              RENAL DIALYSIS              SURGERY                  CESAREAN SECTION                  TRANSPLANTATION                  ORGAN TRANSPLANTATION          TECHNOLOGY ASSESSMENT  <b>ECONOMICS</b>              ADVERTISING              COMPENSATION              COSTS AND BENEFITS              ECONOMIC VALUE OF LIFE              FINANCIAL SUPPORT              INCENTIVES              INDUSTRY                  DRUG INDUSTRY                  PRIVATE HOSPITALS          INSURANCE              HEALTH INSURANCE                  NATIONAL HEALTH INSURANCE                  HEALTH MAINTENANCE ORGANIZATIONS              LIFE INSURANCE          REMUNERATION              MEDICAL FEES          SOCIOECONOMIC FACTORS          STATE MEDICINE          STRIKES  <b>EPIDEMIOLOGY</b>              MORBIDITY              MORTALITY  <b>FOOD</b>              FORCE FEEDING  <b>HEALTH</b>              MATERNAL HEALTH              MENTAL HEALTH              NORMALITY  <b>HEALTH CARE</b>              EMERGENCY CARE              HEALTH CARE DELIVERY                  COMMUNITY SERVICES</p>	<p>HEALTH MAINTENANCE ORGANIZATIONS          NATIONAL HEALTH INSURANCE          STATE MEDICINE  <b>HEALTH EDUCATION</b>          PREVENTIVE MEDICINE  <b>HEALTH FACILITIES</b>  <b>ETHICS COMMITTEES</b>          HOSPICES          HOSPITALS              INTENSIVE CARE UNITS              MENTAL INSTITUTIONS              PRIVATE HOSPITALS              PUBLIC HOSPITALS              RELIGIOUS HOSPITALS          INSTITUTIONAL POLICIES              INSTITUTIONAL OBLIGATIONS          NURSING HOMES  <b>HEALTH HAZARDS</b>          RADIATION  <b>OCCUPATIONAL MEDICINE</b>          OCCUPATIONAL DISEASES  <b>PUBLIC HEALTH</b>          COMMUNICABLE DISEASES          VENEREAL DISEASES              ACQUIRED IMMUNODEFICIENCY SYNDROME                  HIV SEROPOSITIVITY          CONTACT TRACING          FLUORIDATION  <b>HEALTH EDUCATION</b>  <b>IMMUNIZATION</b>          MANDATORY PROGRAMS              QUARANTINE          MASS SCREENING          SUBSTANCE ABUSE              ALCOHOL ABUSE              DRUG ABUSE              SMOKING          TRAFFIC ACCIDENTS          VOLUNTARY PROGRAMS  <b>RECORDS</b>          MEDICAL RECORDS          RESIDENTIAL FACILITIES          NURSING HOMES  <b>RESOURCE ALLOCATION</b>          SCARCITY          SELECTION FOR TREATMENT</p>
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Bold type indicates "major issue" Keywords

PATIENT ADMISSION  
 Tissue Donation and Transplantation Issues  
*[not a Keyword]*  
 DONOR CARDS  
 DONORS  
 ORGAN DONORS  
 TISSUE DONATION

BLOOD DONATION  
 ORGAN DONATION  
 PRESUMED CONSENT  
 REQUIRED REQUEST  
 TISSUE BANKING  
 TRANSPLANTATION  
 ORGAN TRANSPLANTATION

#### D. GENETICS, REPRODUCTION, AND ABORTION

ABORTION  
 ABORTION ON DEMAND  
 ILLEGAL ABORTION  
**SELECTIVE ABORTION**  
 THERAPEUTIC ABORTION  
 Congenital, Genetic, and Chromosomal Disorders *[not a Keyword]*  
 CONGENITAL DEFECTS  
 CHROMOSOMAL DISORDERS  
 DOWN'S SYNDROME  
 XYY KARYOTYPE  
 NEURAL TUBE DEFECTS  
 ANENCEPHALY  
 SPINA BIFIDA  
 PREMATUREITY  
 PRENATAL INJURIES  
 PRECONCEPTION INJURIES  
 GENETIC DEFECTS  
 CHROMOSOMAL DISORDERS  
 DOWN'S SYNDROME  
 XYY KARYOTYPE  
 CYSTIC FIBROSIS  
 DUCHENNE MUSCULAR DYSTROPHY  
 HEMOPHILIA  
 HUNTINGTON'S CHOREA  
 PHENYLKETONURIA  
 SICKLE CELL ANEMIA  
 TAY SACHS DISEASE  
 THALASSEMIA  
 EVOLUTION  
 SOCIOBIOLOGY  
 FAMILY PLANNING  
 CONTRACEPTION  
 STERILIZATION  
 INVOLUNTARY STERILIZATION  
 VOLUNTARY STERILIZATION  
 FETAL DEVELOPMENT  
 TWINNING  
 VIABILITY

FETAL THERAPY  
**FETUSES**  
 ABORTED FETUSES  
 EMBRYOS  
 FREEZING  
 Gametes *[not a Keyword]*  
 OVUM  
 SPERM  
**GENETIC INTERVENTION**  
 EUGENICS  
 NEGATIVE EUGENICS  
 POSITIVE EUGENICS  
 GENE POOL  
**GENE THERAPY**  
 GENETIC COUNSELING  
 GENETIC SCREENING  
 CARRIERS  
 SEX DETERMINATION  
 SEX PRESELECTION  
 GENETICS  
 BEHAVIORAL GENETICS  
 GENOME MAPPING  
 OBSTETRICS AND GYNECOLOGY  
 PARENT CHILD RELATIONSHIP  
 ADOPTION  
 PERSONHOOD  
 BEGINNING OF LIFE  
 HUMAN CHARACTERISTICS  
 POPULATION CONTROL  
 PREGNANT WOMEN  
 CHILDBIRTH  
 CESAREAN SECTION  
 MATERNAL HEALTH  
 MOTHER FETUS RELATIONSHIP  
 MULTIPLE PREGNANCY  
 TWINNING  
 PRENATAL DIAGNOSIS  
 AMNIOCENTESIS  
 CHORIONIC VILLUS SAMPLING

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Bold type indicates "major issue" Keywords



SEX DETERMINATION  
 REPRODUCTION  
 FERTILITY  
 REPRODUCTIVE TECHNOLOGIES  
 ARTIFICIAL INSEMINATION  
 AID  
 AIH  
 CLONING  
 EMBRYO TRANSFER

HOST MOTHERS  
 HYBRIDS  
 IN VITRO FERTILIZATION  
 OVUM DONORS  
 SEMEN DONORS  
 SEX PRESELECTION  
 SEXUALITY  
 WRONGFUL LIFE

**E. DEATH, EUTHANASIA, AND ALLOWING TO DIE**

ADVANCE DIRECTIVES  
 LIVING WILLS  
 ALLOWING TO DIE  
 PROLONGATION OF LIFE  
 RESUSCITATION  
 WITHHOLDING TREATMENT  
 EXTRAORDINARY TREATMENT  
 FOOD  
 AUTOPSIES  
 COMA  
 CRYONIC SUSPENSION  
 DEATH  
 ATTITUDES TO DEATH  
 BRAIN DEATH  
 CADAVERS  
 DETERMINATION OF DEATH  
 MORTALITY

WRONGFUL DEATH  
 KILLING  
 CAPITAL PUNISHMENT  
 EUTHANASIA  
 ACTIVE EUTHANASIA  
 INVOLUNTARY EUTHANASIA  
 VOLUNTARY EUTHANASIA  
 INFANTICIDE  
 SUICIDE  
 LIFE EXTENSION  
 PERSONHOOD  
 SELECTION FOR TREATMENT  
 TERMINAL CARE  
 HOSPICES  
 TERMINALLY ILL  
 TREATMENT REFUSAL

**F. MENTAL HEALTH THERAPIES AND BEHAVIOR CONTROL**

BEHAVIOR CONTROL  
 PHYSICAL RESTRAINT  
 Institutionalization *[not a Keyword]*  
 DEINSTITUTIONALIZED PERSONS  
 INSTITUTIONALIZED PERSONS  
 INVOLUNTARY COMMITMENT  
 DURATION OF COMMITMENT  
 OUTPATIENT COMMITMENT  
 MENTAL INSTITUTIONS  
 VOLUNTARY ADMISSION  
 Legal Issues in Mental Health *[not a Keyword]*  
 INVOLUNTARY COMMITMENT  
 DURATION OF COMMITMENT  
 OUTPATIENT COMMITMENT  
 PSYCHIATRIC DIAGNOSIS  
 COMPETENCE

DANGEROUSNESS  
 RIGHT TO TREATMENT  
 MENTAL HEALTH  
 BEHAVIOR DISORDERS  
 HYPERKINESIS  
 PSYCHOLOGICAL STRESS  
 Mental Health Disciplines *[not a Keyword]*  
 PSYCHIATRY  
 PSYCHOLOGY  
 COUNSELING  
 Mental Health Therapies *[not a Keyword]*  
 ELECTRICAL STIMULATION OF THE  
 BRAIN  
 ELECTROCONVULSIVE THERAPY  
 HYPNOSIS  
 OPERANT CONDITIONING

Bold type indicates "major issue" Keywords

NEGATIVE REINFORCEMENT  
 PSYCHOACTIVE DRUGS  
 PSYCHOSURGERY  
 PSYCHOTHERAPY  
 GROUP THERAPY

MENTALLY HANDICAPPED  
 DEMENTIA  
 MENTALLY ILL  
 SCHIZOPHRENIA  
 MENTALLY RETARDED

### G. BIOMEDICAL AND BEHAVIORAL RESEARCH

**BEHAVIORAL RESEARCH**

**BIOMEDICAL RESEARCH**

**ANIMAL EXPERIMENTATION**

Special Topics in Animal Experimentation *[not a Keyword]*

ANIMAL CARE COMMITTEES  
 ANIMAL TESTING ALTERNATIVES  
 SPECIESISM

**EPIDEMIOLOGY**

**HUMAN EXPERIMENTATION**

**BEHAVIORAL RESEARCH**

DECEPTION  
 NONTHERAPEUTIC RESEARCH  
 THERAPEUTIC RESEARCH  
 Special Topics in Human Experimentation *[not a Keyword]*

**ETHICS COMMITTEES**

**INFORMED CONSENT**

**THIRD PARTY CONSENT**

**PARENTAL CONSENT**

**INVESTIGATOR SUBJECT RELATIONSHIP**

**INVESTIGATORS**

**RESEARCH SUBJECTS**

**MISCONDUCT**

**FRAUD**

**RESEARCH DESIGN**

**SELECTION OF SUBJECTS**

**RANDOM SELECTION**

**RESEARCH SUBJECTS**

**CONTROL GROUPS**

**VOLUNTEERS**

**RECOMBINANT DNA RESEARCH**

Special Topics in Recombinant DNA Research *[not a Keyword]*

**CONTAINMENT**

**REVIEW COMMITTEES**

Special Topics in Biomedical Research *[not a Keyword]*

**ECOLOGY**

**HEALTH HAZARDS**

**MISCONDUCT**

**FRAUD**

**PATENTS**

**BIOLOGICAL LIFE**

**MICROBIOLOGY**

Research Facilities *[not a Keyword]*

**INDUSTRY**

**DRUG INDUSTRY**

**RESEARCH INSTITUTES**

**UNIVERSITIES**

**SCIENCE**

**BIOLOGY**

**MICROBIOLOGY**

**ECOLOGY**

### H. POPULATION GROUPS

**ADMINISTRATORS**

**ALIENS**

**CADAVERS**

**CARRIERS**

**CLERGY**

**DEINSTITUTIONALIZED PERSONS**

**DISADVANTAGED**

**INDIGENTS**

**DONORS**

**ORGAN DONORS**

**OVUM DONORS**

**SEMEN DONORS**

**ETHICISTS**

**FAMOUS PERSONS**

**FETUSES**

**ABORTED FETUSES**

**EMBRYOS**

**FUTURE GENERATIONS**

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Bold type indicates "major issue" Keywords

HANDICAPPED  
 MENTALLY HANDICAPPED  
 MENTALLY ILL  
 MENTALLY RETARDED  
 PHYSICALLY HANDICAPPED  
 HEALTH PERSONNEL  
 DENTISTRY  
 NURSES  
 NURSE MIDWIVES  
 PATIENT CARE TEAM  
 PHARMACISTS  
 PHYSICIANS  
 INTERNSHIP AND RESIDENCY  
 SOCIAL WORKERS  
 HOMOSEXUALS  
 HYBRIDS  
 INSTITUTIONALIZED PERSONS  
 INVESTIGATORS  
 LEGAL GUARDIANS  
 MILITARY PERSONNEL  
 Named Groups by Age *[not a Keyword]*  
 ADULTS  
 AGED  
 MINORS  
 ADOLESCENTS  
 CHILDREN  
 INFANTS  
 NEWBORNS  
 Named Groups by Ethnicity *[not a Keyword]*  
 AMERICAN INDIANS  
 BLACKS  
 HISPANIC AMERICANS  
 JEWS  
 MINORITY GROUPS  
 WHITES  
 Named Groups by Gender *[not a Keyword]*

FEMALES  
 MOTHERS  
 HOST MOTHERS  
 PREGNANT WOMEN  
 MALES  
 FATHERS  
 Named Groups by Family or Marital Status *[not a Keyword]*  
 FAMILY MEMBERS  
 CHILDREN  
 UNWANTED CHILDREN  
 PARENTS  
 FATHERS  
 MOTHERS  
 SIBLINGS  
 MARRIED PERSONS  
 SINGLE PERSONS  
 Named Groups by Religion *[not a Keyword]*  
 CHRISTIAN SCIENCE  
 JEHOVAH'S WITNESSES  
 JEWS  
 PROTESTANTISM  
 ROMAN CATHOLICISM  
 PATIENTS  
 BURN PATIENTS  
 CHRONICALLY ILL  
 CRITICALLY ILL  
 MENTALLY ILL  
 TERMINALLY ILL  
 TRANSPLANT RECIPIENTS  
 PRISONERS  
 RESEARCH SUBJECTS  
 CONTROL GROUPS  
 VOLUNTEERS  
 STUDENTS

### I. LAW, GOVERNMENT, AND PUBLIC POLICY

COMPETENCE  
 CONTRACTS  
 Crimes *[not a Keyword]*  
 CHILD ABUSE  
 DRUG ABUSE  
 FRAUD  
 ILLEGAL ABORTION  
 KILLING  
 INFANTICIDE  
 SEX OFFENSES

RAPE  
 EXPERT TESTIMONY  
 INVOLUNTARY COMMITMENT  
 DANGEROUSNESS  
 DURATION OF COMMITMENT  
 OUTPATIENT COMMITMENT  
 LAW ENFORCEMENT  
 PRISONERS  
 PUNISHMENT  
 CAPITAL PUNISHMENT

Bold type indicates "major issue" Keywords

LEGAL ASPECTS  
 GOVERNMENT REGULATION  
 JUDICIAL ACTION  
 SUPREME COURT DECISIONS  
 LAW  
 CONSTITUTIONAL LAW  
 SUPREME COURT DECISIONS  
 CRIMINAL LAW  
 LEGAL LIABILITY  
 TORTS  
 MALPRACTICE  
 NEGLIGENCE  
 LEGAL OBLIGATIONS  
 LEGAL RIGHTS  
 DUE PROCESS  
 EQUAL PROTECTION  
 PRIVACY  
 PROPERTY RIGHTS  
 RIGHT TO TREATMENT  
 LEGISLATION  
 CONSTITUTIONAL AMENDMENTS  
 MODEL LEGISLATION  
 STATE INTEREST  
 LEGAL GUARDIANS  
 MINORS  
 PATENTS  
 PRIVILEGED COMMUNICATION

PUBLIC POLICY  
 POLITICS  
*Government Levels [not a Keyword]*  
 FEDERAL GOVERNMENT  
 MUNICIPAL GOVERNMENT  
 STATE GOVERNMENT  
 POLITICAL ACTIVITY  
 DISSENT  
 PUBLIC ADVOCACY  
 POLITICAL SYSTEMS  
 CAPITALISM  
 COMMUNISM  
 DEMOCRACY  
 NATIONAL SOCIALISM  
 SOCIALISM  
 SOCIAL CONTROL  
 PUBLIC PARTICIPATION  
 REGULATION  
 GOVERNMENT REGULATION  
 JUDICIAL ACTION  
 LEGISLATION  
 TORTS  
 COMPENSATION  
 MALPRACTICE  
 NEGLIGENCE  
 WRONGFUL DEATH  
 WRONGFUL LIFE

### J. SOCIAL AND PSYCHOLOGICAL FACTORS

ATTITUDES  
 ATTITUDES TO DEATH  
 PUBLIC OPINION  
 COMMUNICATION  
 INFORMATION DISSEMINATION  
 INTERDISCIPLINARY COMMUNICATION  
 MASS MEDIA  
 DANGEROUSNESS  
 AGGRESSION  
 VIOLENCE  
 DEHUMANIZATION  
 FAMILY RELATIONSHIP  
 MARITAL RELATIONSHIP  
 PARENT CHILD RELATIONSHIP  
 ADOPTION  
 HUMAN RIGHTS  
 DISSENT  
 SOCIAL DISCRIMINATION  
 STIGMATIZATION

TORTURE  
 WOMEN'S RIGHTS  
 INTERNATIONAL ASPECTS  
 ALIENS  
 CULTURAL PLURALISM  
 DEVELOPING COUNTRIES  
*Personal Attributes [not a Keyword]*  
 COMPETENCE  
 COMPREHENSION  
 RECALL  
 INTELLIGENCE  
 MORAL DEVELOPMENT  
 ALTRUISM  
 CONSCIENCE  
 MOTIVATION  
 SEXUALITY  
 HOMOSEXUALS  
 TRANSSEXUALISM  
 SOCIAL INTERACTION

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Bold type indicates "major issue" Keywords

**PERSONHOOD**

**HUMAN CHARACTERISTICS**  
**SELF CONCEPT**  
**QUALITY OF LIFE**  
**SOCIAL CONTROL**  
**INFORMAL SOCIAL CONTROL**  
**INCENTIVES**  
**SOCIAL DOMINANCE**  
**SOCIAL IMPACT**  
**SOCIAL PROBLEMS**  
*Crimes [not a Keyword]*  
**CHILD ABUSE**  
**FRAUD**  
**ILLEGAL ABORTION**  
**KILLING**  
**INFANTICIDE**  
**SEX OFFENSES**  
**RAPE**  
**SOCIAL DISCRIMINATION**  
**STIGMATIZATION**  
**SUBSTANCE ABUSE**  
**ALCOHOL ABUSE**  
**DRUG ABUSE**  
**SMOKING**  
**TORTURE**  
**TRAFFIC ACCIDENTS**

**WAR**

**BIOLOGICAL WARFARE**  
**NUCLEAR WARFARE**  
**SOCIAL WORTH**  
**SOCIOECONOMIC FACTORS**  
**AGE**  
**CULTURAL PLURALISM**  
**DISSENT**  
**ECONOMICS**  
**DISADVANTAGED**  
**INDIGENTS**  
**EMPLOYMENT**  
*Named Groups by Ethnicity [not a Keyword]*  
**AMERICAN INDIANS**  
**BLACKS**  
**HISPANIC AMERICANS**  
**JEWS**  
**MINORITY GROUPS**  
**WHITES**  
**RELIGION**  
**RELIGIOUS BELIEFS**  
**SUFFERING**  
**PAIN**  
**PSYCHOLOGICAL STRESS**  
**VALUE OF LIFE**

**K. DISCIPLINES, EDUCATION, AND PROFESSIONAL PRACTICE**

*Disciplines [not a Keyword]*

**EDUCATION**  
**HEALTH EDUCATION**  
**MEDICAL EDUCATION**  
**INTERNSHIP AND RESIDENCY**  
**NURSING EDUCATION**  
*Topics Related to Education [not a Keyword]*  
**CURRICULUM**  
**HUMANISM**  
**STUDENTS**  
**TEACHING METHODS**  
**UNIVERSITIES**  
*Health Sciences and Practitioners [not a Keyword]*  
**HEALTH PERSONNEL**  
**DENTISTRY**  
**NURSES**  
**NURSE MIDWIVES**  
**PATIENT CARE TEAM**  
**PHYSICIANS**

**INTERNSHIP AND RESIDENCY**  
**PHARMACISTS**  
**SOCIAL WORKERS**  
**MEDICINE**  
**EPIDEMIOLOGY**  
**OBSTETRICS AND GYNECOLOGY**  
**OCCUPATIONAL MEDICINE**  
**OPHTHALMOLOGY**  
**PEDIATRICS**  
**PREVENTIVE MEDICINE**  
**PSYCHIATRY**  
**PUBLIC HEALTH**  
**RADIOLOGY**  
**SPORTS MEDICINE**  
**SURGERY**  
**HUMANITIES**  
**ETHICS**  
**BIOETHICS**  
**PROFESSIONAL ETHICS**  
**MEDICAL ETHICS**

Bold type indicates "major issue" Keywords

**NURSING ETHICS**  
**LITERATURE**  
**PHILOSOPHY**  
**THEOLOGY**  
**SCIENCE**  
**BIOLOGY**  
**ECOLOGY**  
**GENETICS**  
**BEHAVIORAL GENETICS**  
**MICROBIOLOGY**  
**SOCIOBIOLOGY**  
**SOCIAL SCIENCES**  
**ECONOMICS**  
**LAW**  
**PSYCHOLOGY**  
**COUNSELING**  
**SOCIAL WORKERS**  
**SOCIOLOGY OF MEDICINE**  
*Professional Practice Issues [not a Keyword]*

**INTERDISCIPLINARY COMMUNICATION**  
**LEGAL LIABILITY**  
**MALPRACTICE**  
**NEGLIGENCE**  
**MEDICAL ETIQUETTE**  
**MEDICAL FEES**  
**MISCONDUCT**  
**FRAUD**  
**PHYSICIAN NURSE RELATIONSHIP**  
**PHYSICIAN'S ROLE**  
**PROFESSIONAL COMPETENCE**  
**TECHNICAL EXPERTISE**  
**GENERALIZATION OF EXPERTISE**  
**PROFESSIONAL ORGANIZATIONS**  
**ORGANIZATIONAL POLICIES**  
**REFERRAL AND CONSULTATION**  
**SELF REGULATION**  
**PEER REVIEW**  
**STRIKES**

## L. BODY PARTS, DISEASES, PROCEDURES AND TECHNIQUES

**BODY PARTS AND FLUIDS**  
**ANIMAL ORGANS**  
**ARTIFICIAL ORGANS**  
**BONE MARROW**  
**BRAIN**  
**CADAVERS**  
*Gametes [not a Keyword]*  
**OVUM**  
**SPERM**  
**HEARTS**  
**KIDNEYS**  
**LIVERS**  
**Diseases and Disorders, Disabilities, and Substance Abuse [not a Keyword]**  
**BEHAVIOR DISORDERS**  
**HYPERKINESIS**  
**BURN PATIENTS**  
**CANCER**  
**LEUKEMIA**  
**CENTRAL NERVOUS SYSTEM DISEASES**  
**BRAIN PATHOLOGY**  
**ANENCEPHALY**  
**DEMENTIA**  
**PHENYLKETONURIA**  
**TAY SACHS DISEASE**  
**TEMPORAL LOBE EPILEPSY**  
**COMA**

**COMMUNICABLE DISEASES**  
**HEPATITIS**  
**INFLUENZA**  
**POLIOMYELITIS**  
**RUBELLA**  
**VENEREAL DISEASES**  
**ACQUIRED IMMUNODEFICIENCY SYNDROME**  
**HIV SEROPOSITIVITY**  
**SYPHILIS**  
**WHOOPING COUGH**  
**Congenital, Genetic, and Chromosomal Disorders [not a Keyword]**  
**CHROMOSOMAL DISORDERS**  
**DOWN'S SYNDROME**  
**XYY KARYOTYPE**  
**CONGENITAL DEFECTS**  
**CHROMOSOMAL DISORDERS**  
**DOWN'S SYNDROME**  
**XYY KARYOTYPE**  
**NEURAL TUBE DEFECTS**  
**ANENCEPHALY**  
**SPINA BIFIDA**  
**PREMATURITY**  
**PRENATAL INJURIES**  
**PRECONCEPTION INJURIES**  
**GENETIC DEFECTS**

Bold type indicates "major issue" Keywords

- CYSTIC FIBROSIS**  
**DUCHENNE MUSCULAR DYSTROPHY**  
**GROWTH DISORDERS**  
**HEMOPHILIA**  
**HUNTINGTON'S CHOREA**  
**SICKLE CELL ANEMIA**  
**TAY SACHS DISEASE**  
**THALASSEMIA**  
**DIABETES**  
 Disabilities and the Disabled *[not a Keyword]*  
**HANDICAPPED**  
     **MENTALLY HANDICAPPED**  
         **DEMENTIA**  
         **MENTALLY ILL**  
         **SCHIZOPHRENIA**  
     **PHYSICALLY HANDICAPPED**  
**EYE DISEASES**  
**HEART DISEASES**  
**HYPERTENSION**  
**IATROGENIC DISEASE**  
**INJURIES**  
     **PRENATAL INJURIES**  
     **PRECONCEPTION INJURIES**  
**KIDNEY DISEASES**  
**OCCUPATIONAL DISEASES**  
**PAIN**  
**SELF INDUCED ILLNESS**  
**SUBSTANCE ABUSE**  
     **ALCOHOL ABUSE**  
     **DRUG ABUSE**  
     **SMOKING**  
 Procedures and Techniques *[not a Keyword]*  
 Procedures and Techniques – Diagnostic *[not a Keyword]*  
     **AUTOPSIES**  
     **DIAGNOSIS**  
         **MASS SCREENING**  
         **GENETIC SCREENING**  
         **PRENATAL DIAGNOSIS**  
         **AMNIOCENTESIS**  
         **CHORIONIC VILLUS SAMPLING**  
         **SEX DETERMINATION**  
     **PROGNOSIS**  
     **PSYCHIATRIC DIAGNOSIS**  
     **RADIOLOGY**  
 Procedures and Techniques – Therapeutic *[not a Keyword]*  
     **ABORTION**  
         **SELECTIVE ABORTION**  
     **THERAPEUTIC ABORTION**  
**ALTERNATIVE THERAPIES**  
**BIOMEDICAL TECHNOLOGIES**  
**BLOOD TRANSFUSIONS**  
**FETAL THERAPY**  
**GENE THERAPY**  
**RENAL DIALYSIS**  
**REPRODUCTIVE TECHNOLOGIES**  
     **ARTIFICIAL INSEMINATION**  
     **AID**  
     **AIH**  
     **CLONING**  
     **EMBRYO TRANSFER**  
     **HOST MOTHERS**  
     **IN VITRO FERTILIZATION**  
     **OVUM DONORS**  
     **SEMEN DONORS**  
     **SEX PRESELECTION**  
**RESUSCITATION**  
**Drugs, Biological Products, and Medical Devices [not a Keyword]**  
**DRUGS**  
     **ANESTHESIA**  
     **PLACEBOS**  
     **PSYCHOACTIVE DRUGS**  
         **HEROIN**  
         **LSD**  
     **TOXICITY**  
     **HORMONES**  
     **INSULIN**  
     **MEDICAL DEVICES**  
**IMMUNIZATION**  
**Mental Health Therapies [not a Keyword]**  
     **ELECTRICAL STIMULATION OF THE BRAIN**  
     **ELECTROCONVULSIVE THERAPY**  
     **HYPNOSIS**  
     **OPERANT CONDITIONING**  
         **NEGATIVE REINFORCEMENT**  
     **PSYCHOACTIVE DRUGS**  
     **PSYCHOSURGERY**  
     **PSYCHOTHERAPY**  
         **GROUP THERAPY**  
**NUTRITION**  
     **FOOD**  
     **FORCE FEEDING**  
**SURGERY**  
     **CESAREAN SECTION**  
     **GHOST SURGERY**

Bold type indicates "major issue" Keywords

PSYCHOSURGERY  
STERILIZATION  
INVOLUNTARY STERILIZATION

VOLUNTARY STERILIZATION  
TRANSPLANTATION  
ORGAN TRANSPLANTATION

### M. TAGS AND GENERALITIES

ALTERNATIVES  
ATTITUDES  
PUBLIC OPINION  
COMMUNICATION  
INFORMATION DISSEMINATION  
AUDIOVISUAL AIDS  
COMPUTERS  
DATA BASES  
EDITORIAL POLICIES  
LITERATURE  
MASS MEDIA  
RECORDS  
MEDICAL RECORDS  
DECISION MAKING  
DECISION ANALYSIS  
EVALUATION  
GOALS

HISTORICAL ASPECTS  
ANCIENT HISTORY  
METHODS  
*Programs [not a Keyword]*  
MANDATORY PROGRAMS  
PROGRAM DESCRIPTIONS  
VOLUNTARY PROGRAMS  
RISKS AND BENEFITS  
STANDARDS  
STATISTICS  
*Tags Designating the Content of Documents*  
*[not a Keyword]*  
BIBLIOGRAPHY  
BOOK REVIEW  
CASE STUDIES  
REVIEW *[old records: REVIEW ARTICLE]*  
SURVEY

### Z. GEOGRAPHIC NAMES

AFRICA  
EGYPT  
GAMBIA  
GHANA  
KENYA  
NIGERIA  
NORTHERN AFRICA  
RHODESIA  
SOUTH AFRICA  
TANZANIA  
WESTERN AFRICA  
*America [not used yet]*  
CENTRAL AMERICA  
EL SALVADOR  
GUATEMALA  
NICARAGUA  
LATIN AMERICA  
NORTH AMERICA  
CANADA  
ALBERTA  
BRITISH COLUMBIA  
*Northwest Territories [not MeSH]*

NOVA SCOTIA  
ONTARIO  
*Toronto [not MeSH]*  
QUEBEC  
*Montreal [not MeSH]*  
SASKATCHEWAN  
MEXICO  
UNITED STATES  
ALABAMA  
ALASKA  
ARIZONA  
ARKANSAS  
CALIFORNIA  
LOS ANGELES  
SAN FRANCISCO  
COLORADO  
CONNECTICUT  
DELAWARE  
DISTRICT OF COLUMBIA  
FLORIDA  
GEORGIA  
HAWAII

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Bold type indicates "major issue" Keywords



IDAHO  
 ILLINOIS  
     CHICAGO  
 INDIANA  
 IOWA  
 KANSAS  
 KENTUCKY  
 LOUISIANA  
     New Orleans *[not MeSH]*  
 MAINE  
 MARYLAND  
     BALTIMORE  
 MASSACHUSETTS  
     BOSTON  
 MICHIGAN  
 MIDWESTERN UNITED STATES  
 MINNESOTA  
     Minneapolis *[not MeSH]*  
 MISSISSIPPI  
 MISSOURI  
 MONTANA  
 NEBRASKA  
 NEVADA  
 NEW ENGLAND  
 NEW HAMPSHIRE  
 NEW JERSEY  
 NEW MEXICO  
 NEW YORK  
     Long Island *[not MeSH]*  
     NEW YORK CITY  
     Rochester *[not MeSH]*  
 NORTH CAROLINA  
 NORTH DAKOTA  
 OHIO  
 OKLAHOMA  
 OREGON  
 PENNSYLVANIA  
     PHILADELPHIA  
     Pittsburgh *[not MeSH]*  
 RHODE ISLAND  
 SOUTH CAROLINA  
 SOUTH DAKOTA  
 TENNESSEE  
 TEXAS  
 UTAH  
 VERMONT  
 VIRGINIA  
 WASHINGTON  
 WEST VIRGINIA  
  
 WISCONSIN  
 WYOMING  
 SOUTH AMERICA  
     ARGENTINA  
     BRAZIL  
     CHILE  
     COLOMBIA  
     URUGUAY  
     VENEZUELA  
 WEST INDIES  
     BARBADOS  
     Commonwealth Caribbean *[not MeSH]*  
 CUBA  
 PUERTO RICO  
 TRINIDAD  
 ANTARCTIC REGIONS  
 ASIA  
     SOUTHEAST ASIA  
         CAMBODIA  
         INDONESIA  
         MALAYSIA  
         PHILIPPINES  
         SINGAPORE  
         THAILAND  
         VIETNAM  
     West Asia *[not used yet]*  
         ARABIA  
         KUWAIT  
         BANGLADESH  
         INDIA  
         IRAQ  
         ISRAEL  
         PAKISTAN  
         SYRIA  
         TURKEY  
     Far East *[not used yet]*  
         CHINA  
         JAPAN  
         TOKYO  
         SOUTH KOREA *[not MeSH]*  
         USSR  
 AUSTRALIA  
     NEW SOUTH WALES  
     Northern Territory *[not MeSH]*  
     QUEENSLAND  
     TASMANIA  
     VICTORIA  
     WESTERN AUSTRALIA  
     British Commonwealth *[not MeSH]*

Bold type indicates "major issue" Keywords

Commonwealth Caribbean <i>[not MeSH]</i>	Bavaria <i>[not MeSH]</i>
Cities <i>[not a Keyword]</i>	<b>GREAT BRITAIN</b>
BALTIMORE	ENGLAND
BOSTON	LONDON
CHICAGO	NORTHERN IRELAND
Edinburgh <i>[not MeSH]</i>	SCOTLAND
LONDON	Edinburgh <i>[not MeSH]</i>
LOS ANGELES	WALES
Minneapolis <i>[not MeSH]</i>	GREECE
Montreal <i>[not MeSH]</i>	ICELAND
New Orleans <i>[not MeSH]</i>	IRELAND
NEW YORK CITY	ITALY
PHILADELPHIA	NETHERLANDS <i>[old records: HOLLAND]</i>
Pittsburgh <i>[not MeSH]</i>	PORTUGAL
Rochester <i>[not MeSH]</i>	SCANDINAVIA
SAN FRANCISCO	DENMARK
TOKYO	FINLAND
Toronto <i>[not MeSH]</i>	NORWAY
<b>EUROPE</b>	SWEDEN
<b>EASTERN EUROPE</b>	SPAIN
CZECHOSLOVAKIA	SWITZERLAND
EAST GERMANY	<b>MIDDLE EAST</b>
HUNGARY	ARABIA
POLAND	KUWAIT
ROMANIA <i>[old records: RUMANIA]</i>	EGYPT
USSR	IRAQ
RUSSIA	ISRAEL
YUGOSLAVIA	SYRIA
<b>WESTERN EUROPE</b>	TURKEY
AUSTRIA	NEW ZEALAND
BELGIUM	PACIFIC ISLANDS
FRANCE	HAWAII
GERMANY	NEW GUINEA
WEST GERMANY	PAPUA NEW GUINEA

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Bold type indicates "major issue" Keywords

## BIOSEEK - New Biotechnology File

The latest MEDLARS database announced in the October 1989 *Technical Bulletin* will be available this summer. "BIOTECHSEEK," or alternatively, "BIOSEEK," contains citations and abstracts to biotechnology journal articles **not** covered in MEDLINE. We encourage you to search both MEDLINE and BIOSEEK for complete coverage of biotechnology-related material, including molecular sequence databank information in the Secondary Source (SI) field.

References to approximately 30 1990-forward biotechnology journals will initially be included in this file. These journals have been recommended by NLM's

Literature Selection Technical Review Committee; citations derived from other bibliographic services are planned for inclusion in the future. All of the references will carry a value of "B" in the Special List Indicator (LI) field and will also be identified with this value in the (LI) field in SERLINE. This special designator indicates that the articles referenced come from biotechnology-related, non-Index Medicus journals.

The structure of BIOSEEK is identical to that of MEDLINE. You should search this database using the MeSH vocabulary and the same searching techniques which apply to MEDLINE. We remind you that MeSH now contains specific biotechnology-related terminology, including new 1990 headings related to gene sequence, structure, expression and function.

Check future issues of the *Technical Bulletin* and the online News for the availability date for BIOSEEK.

## CATLINE Update

### Country of Publication for Pre-19th Century Imprints

When NLM converted its card catalog to CATLINE, the Country of Publication (CY) element was not provided because of the difficulty of assigning the country from the imprint data. For historical works, many of the place names are in Latin or indicate places which have changed names and/or countries over time. For historians, however, the place of publication is an important searching element. In 1988, only 4% of the pre-19th century material had a country designation. Therefore, the NLM History of Medicine Division (HMD) undertook a project over the past two years, to supply the Country of Publication for all pre-19th century imprints in the CATLINE database (nearly 57,000 citations). Ninety-seven percent of these citations now have a CY field value. The exceptions are 867 citations where the imprint place value is "n.p." (no place) or "s.l." (sine loco) and approximately 600 citations which will be manually maintained during 1990. Next year, citations where place is undetermined will be given a search value in the CY field to indicate that country is undetermined. This will distinguish these citations from those 19th and 20th century citations which still do not have a country value.

Countries were assigned using a mapping list of city

stems of Latin variants as well as vernacular equivalents. The country assigned is the current country in which the city is located, not the country at time of publication. This practice is consistent with the cataloging rules applied to all newly cataloged items, regardless of publication date. Country names can be searched using the values in the Mesh Z Category for Geographic Names.

In addition to these 57,000 citations, about 2200 citations classified as Americana (WZ 270) were assigned a United States value.

The identification of country using city names is not easily accomplished for material published after the 18th century. The primary difficulty arises out of the duplication of place names, often between European cities and U. S. cities. No consistent practice of entry in the imprint field is readily discernible. Where one-to-one matches can be identified and programmed, HMD will request upgrades to CATLINE during future year-end processing.

While we have endeavored to be as accurate as possible, some errors using the stemming algorithm are possible. Should you come across any citations which you believe to be incorrectly identified, we would appreciate knowing about them. Please send any corrections to the History of Medicine Division, attention Lillian Kozuma.

## Chemical Information Update

### ChemID

There will be several enhancements in 1990 for searchers interested in retrieving chemical information on ELHILL. A new chemical dictionary file named ChemID was made available in February, and in April, the rebuilding of CHEMLINE will add some new features.

The ChemID file is a non-royalty chemical directory which is available at the MEDLINE rates of approximately \$23.50 per hour (prime-time). It was designed to help searchers identify chemicals of interest and point them towards MEDLARS files on both ELHILL (MEDLINE, AIDSLINE, CANCERLIT etc.) and TOXNET which contain data for that substance. The scope of ChemID includes all substances cited in ELHILL and TOXNET with the exception of those cited only in TOXLIT and/or TOXLIT65. ChemID will cover some substances which do not have CAS Registry Numbers (RN), starting with about 20,000 from the RTECS file.

ChemID will be very useful for searchers looking for most drugs and chemicals of regulatory interest to determine if there are data available in other MEDLARS files. Users who need to search against a file containing all substances in TOXLIT and TOXLIT65, or need the latest CA Index Name or molecular formula might want to search CHEMLINE as well. A question can be run against both files using the MultiFile Search mode of ELHILL, starting in ChemID and continuing to CHEMLINE if no answers are found.

ChemID contains several new fields which may be of interest to searchers. In comparison with CHEMLINE,

there is a new NM (Name of Substance) field, an MX (Mixture Name) field, and an MH (MeSH Heading) field. The chemical names in ChemID are split into several different fields (N1, NM, SY) when printed, but are all searchable in the SY field for convenience. Other than its new fields, ChemID has the same fields as CHEMLINE and they are searchable in the same manner. Ring Information is not offered in ChemID, however.

### CHEMLINE

In the 1990 rebuilding of CHEMLINE there are at least two improvements planned which will impact searchers. First, data in the molecular formula field will be split to allow users to access embedded molecular formulas. To illustrate this point, let's examine the search strategies possible for the substance Pyrantel Pamoate, which has the following molecular formula in CHEMLINE:

MF - C23-H16-O6.C11-H14-N2-S

Currently the full molecular formula up to 39 characters is searchable in CHEMLINE. After rebuilding, both sections of the formula may be searched separately, e.g., "C23-H16-O6" and "C11-H14-N2-S". Because the second part of the printed formula represents the significant "Pyrantel" part of the compound, this enhancement will greatly facilitate this type of searching.

Second, in the rebuilding we also expect to add significantly more machine-uninverted chemical names. CAS has been asked to write programs that create names in the Synonym (SY) field such as "1,2-dichlorophenol" (SY) from the Systematic Name field, where the name is given in inverted form as in "Phenol, 1,2-dichloro-"(N1). When these are added to CHEMLINE, it should make searching for certain types of industrial chemicals much easier, since they are often identified by uninverted names in articles and catalogs.

## DIRLINE: Recent Changes

DIRLINE (Directory of Information Resources Online) has undergone many significant changes. In the last 2 years the number of subfiles has increased from 4 to the current 11. The subfiles and their producers are:

- National Referral Center Database (Library of Congress)
- National Health Information Center Database (Office of Disease Prevention and Health Promotion)
- AIDS Organizations (National AIDS Information Clearinghouse)
- Self-Help Clearinghouses (Surgeon General's Initiative in Self-Help and Public Health)
- Directory of Biotechnology Information Resources (National Library of Medicine)
- NIH Research Resources (National Institutes of Health)
- Health Care Technology Assessment (Information Panel of the Council on Health Care Technology)
- Poison Control Centers (American Association of Poison Control Centers)
- History of Medicine (National Library of Medicine)
- Drug Abuse Communications Network (National Clearinghouse on Drug and Alcohol Information)

Changes in database management procedures have streamlined the updating process and improved quality control. The unit record has been modified, with new fields added in order to improve searching and retrieval of more specific information. Several changes made in late 1989 and early 1990 are significant to users of this database.

### Health Care Technology Assessment Subfile Added

In October 1989, a subfile containing information about organizations involved in health care technology assessment was added to DIRLINE. This subfile is one of the results of a project to improve NLM's information resources in this area. The subfile, containing 135 records, is identified by the acronym HCTA in the SI field. It is anticipated that this subfile will be updated annually.

This project was carried out under the auspices of the Information Panel of the Council on Health Care Technology. The Council was established within the Institute of Medicine in 1986 to promote the development and application of technology assessment in medicine and health care. It created an Information Panel to guide the development of information resources for health care technology assessment. A major project of this Information Panel was the Medical technology assessment directory: A pilot reference to organizations, assessments, and information resources\*. Part 1 of the Directory contains descriptions of more than 60 organizations with assessment programs. Part 2 contains a thesaurus of technology terms and technology assessment report citations. Part 3 of the Directory contains descriptions of information and data resources that may be of value for assessing medical technologies. These include online databases, data files, directories, and reports. Part 4 contains information about 72 related organizations which do not actively generate technology assessment reports but do participate in their production.

The information compiled in the Directory was used to add and modify records in DIRLINE. The information provided for DIRLINE includes organization name, address, contact, telephone number, and description of the services, activities and publications of the organization. In an effort to reduce duplication of records, update information was provided to other subfile producers for any existing records for organizations involved in the area of health care technology assessment. Every effort was made to include the names of the publications which report the results of the assessments.

### MeSH Indexing of DIRLINE

One of the problems in retrieving information from DIRLINE has been the lack of a single, consistent indexing vocabulary. Subfile producers may use their own local vocabulary to index their records. Indeed, several of the subfiles have no keywords applied to them by their producers. In December 1989, a contract to index the entire DIRLINE database using MeSH was completed. The index terms were added to the online

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\*Medical technology assessment directory: a pilot reference to organizations, assessments, and information resources. Clifford Goodman (ed), Council on Health Care Technology, Institute of Medicine, Washington, D.C., National Academy Press, 1988.

database in January 1990. The indexing in DIRLINE differs from that in other NLM databases in that only main headings are used (i.e., no subheadings). There were a few records from the National Referral Center (NRC) database, produced by the Library of Congress, for which relevant MeSH terms were not found; these records remain in DIRLINE and are accessible without MeSH headings. As new records are added by the subfile producers, NLM will supply the MeSH indexing. It is expected that the MeSH terms applied in DIRLINE will be updated annually in conjunction with NLM's annual MeSH update. DIRLINE users can now use many of the MeSH searching capabilities including EXPLODE and the asterisk to indicate the main point of the record. MeSH searching in DIRLINE is also available to GRATEFUL MED users (IBM Version 5.0) with the use of the F10 key on a Subject Words line.

#### Other Changes

Several other changes have been made which are expected to improve the usefulness of DIRLINE. A directly searchable field was created for CITY so that users could perform more specific searches. In order to permit users to easily extract only the information they seek, the abstract field has been removed from the database and replaced with three more specific fields: General Description (GD), Services and Facilities (SAF), and Publications (PB). Version 5.0 of

GRATEFUL MED has been programmed for these new fields so that GRATEFUL MED users will have no difficulty with the new format. NLM users who search DIRLINE directly can easily print basic descriptive information (Name, Address, Telephone, Contact, and General Description) for retrieved records by using the print format PRINT DESCRIPTION (PRT DES).

One of the complaints from users has been that DIRLINE records are out of date. DIRLINE is now on a quarterly update schedule and was updated four times in 1989. Previously, DIRLINE was updated semiannually. While each individual record will not be updated that frequently, the increased update frequency for the database means that users will see more up-to-date information overall. Several of the subfiles are completely replaced each year. These include the Poison Control Centers (PCC), Maternal and Child Health (MCH), Self-Help Clearinghouses (SHC), and NIH Research Resources (NIHRES). NRC, National AIDS Information Clearinghouse, Directory of Biotechnology Information Resources (DBIR), National Health Information Center database (HR), and History of Medicine (HMD) provide quarterly updates.

NLM continues to seek ways to improve DIRLINE. Additional subfiles will be added if they address subjects not adequately covered in the database. NLM is also working with subfile producers to improve timeliness and relevance.

## HEALTH PLANNING & ADMINISTRATION Update

At the close of 1989, the HEALTH PLANNING & ADMINISTRATION database (HEALTH), produced cooperatively by the National Library of Medicine and the American Hospital Association (AHA) Resource Center, contained 477,402 citations to worldwide literature concerned with all aspects of health care delivery. The file is updated monthly, one week following the second MEDLINE semi-monthly update.

### VOCABULARY

Several of the new 1990 medical subject headings are particularly relevant in searching HEALTH:

ABBREVIATED INJURY SCALE  
COMORBIDITY  
GERIATRIC ASSESSMENT  
GLASGOW COMA SCALE  
INJURY SEVERITY SCORE  
INTENSIVE CARE, NEONATAL  
NEONATAL SCREENING  
NUTRITION ASSESSMENT  
RELATIVE VALUE SCALES  
TOMOGRAPHY SCANNERS, X-RAY COMPUTED  
TRAUMA SEVERITY INDICES  
WRONGFUL LIFE

MeSH has grouped or hierarchically "treed" the United States by region and by state under two new non-MeSH terms: UNITED STATES BY REGION (NON-MESH) and UNITED STATES BY INDIVIDUAL STATE (NON MESH). Both are included in the geographical pre-explosion of the United States, UNITED STATES MC (PX); this means that UNITED STATES MC (PX) retrieves citations whose subject matter relates to the United States, its geographic regions, any of its States, and several cities. UNITED STATES (PX), that is without the MC, retrieves any citation published in the U.S.A.

Searchers should be aware that only the subheadings listed in the Allowable Topical Qualifiers (AQ) field in the MeSH vocabulary database (File MeSH) may be used with the main headings under which they are listed. Also, for some N Category (Health Care) headings, subheadings that have been allowed in the past may no longer be allowed in 1990. For example, /organization & administration is no longer allowed with HEALTH MANPOWER or its indented terms. In Annotated MeSH, neither the annotations nor the 'Topical

Subheadings by Allowable Category' section in the Introduction necessarily reflect the AQ field. If you are limiting your search by subheadings, be sure to consult the online MeSH file to see which subheadings are allowed for citations entered into HEALTH after December 1989.

### COVERAGE

Each issue of the *Technical Bulletin* contains a 'Serials Update' section that lists title changes, deletions, and additions for indexed journals. Journal titles indexed only for Health are preceded by 'HLI'. These journal titles are also listed in the NLM publication, List of Serials Indexed for Online Users (LSIOU) marked with the letter (H) to the right of the NLM call number on the last line of the entry. Since November 1988, there were 23 new titles, 13 title changes, and 21 titles which either were deselected or ceased publication in the journals indexed for the HEALTH file. All of these changes are reflected in the SERLINE database for Special List Indicator (LI) titles with the Value 'H': H(LI).

### PUBLICATIONS UPDATE

The Hospital Literature Index, produced from HEALTH and published quarterly by the AHA Resource Center, completed its 45th consecutive year of publication in 1989. In addition to subject name and journal sections derived from HEALTH, each issue also lists the books, audiovisuals, theses, and new journals acquired by the Resource Center, grouped by Medical Subject Headings. The last issue for 1989, Volume 45 contains 15,705 citations, the most citations ever for the hardbound annual cumulation. In 1989, the NLM title control number was added to each title in the Journals Indexed section as an aid to locating journals. In 1990, the first author affiliation will be added to the Name Section on a trial basis for the three paperbound quarterly issues. Continuation will be based on an evaluation of user response and impact on the size of the Index. A 1990 subscription is available for \$170 to AHA members and \$212.50 to non-members.

A User's Guide to the Hospital Literature Index has been developed by the AHA Resource Center. In tent-card format, 11 x 5-1/2 inches, it is designed for ready reference in searching the Index. Single copies are available free from the AHA Resource Center (see next page for address).

A revised (1990) brochure on HEALTH is now available from AHA. An 8-page booklet, it is available in lots of 50 to AHA members for \$10.00 and to non-members for



\$15.00, AHA Catalog No. 121051. This brochure is ideal for use as a library services orientation tool.

### SPECIALIZED TRAINING

The AHA Resource Center continues to offer a half-day seminar on searching the HEALTH file. The course can be taught at local sites, with or without online demonstrations. It has been approved for 3.2 contact hours of MLA CE credit. For additional information on this seminar or products mentioned above, contact the:

AHA Resource Center  
840 North Lake Shore Drive  
Chicago, IL 60611  
312-280-6263

The U.S. Medical Library Association (Chicago, IL) now offers a new version of CE 433 - Health Care Administration Information Resources, revised in 1989 by a team of experts from the AHA Resource Center. The Syllabus from this course provides excellent access to information on health care delivery. In addition to listing print, online, and organizational resources, the syllabus provides a broad overview and chronology of the subject.

A key article on the literature of health care delivery appeared in 1989: **Health Care administration: a core collection.** *Hosp Health Serv Adm* 1989 Winter;34(4):559-76. This article was compiled by the staff of the AHA Resource Center and is designed to help librarians select and build collections that meet the information needs of health care administrative personnel. The list includes 147 books and 87 journals and is arranged by broad subject categories.

The Monthly Search Hint in the May 1989 *Technical Bulletin* explained how to search online for resource-based relative value scales prior to the addition of the

MeSH term RELATIVE VALUE SCALES in 1990.

HEALTH searching using a user-friendly INPUT form screen was extended to Macintosh users in the Macintosh Version 1.01 of GRATEFUL MED in August 1989. Access to HEALTH with GRATEFUL MED for the IBM has been available within the 'OTHER databases' option since Version 3.0 (1988).

### CHANGES IN SEARCH/PRINT CAPABILITIES IN 1989

Most HEALTH file Unique Identifiers (UIs) can now be used in DOCLINE for automatic routing of journal requests. (See the February 1989 *Technical Bulletin*, p.17)

A new Comments (CM) field was added to HEALTH. As of the end of 1989, no comment linkages had yet been added. During 1990, linkages will be added for comments in journals with a publication date of 1989 onward. (See the March 1989 *Technical Bulletin* pp.14-6.)

AIDSLINE is now enhanced with relevant citations from HEALTH dating from 1980 to the present. (See the April 1989 *Technical Bulletin* pp.5-8.)

NLM has announced that AHA Resource Center holdings will be incorporated into SERHOLD by January 1990, at which time AHA will be added to routing maps in DOCLINE. (See the September 1989 *Technical Bulletin* p.5.)

The Address (AD) field is now extended to all indexed titles, including special list health, beginning with journals having a publication date of 1990. This field is printable, but not searchable. It gives the institutional affiliation with partial address of the principal author, if stated in the article.

## PDQ, CANCERLIT and CLINPROT

The National Cancer Institute (NCI) is pleased to present the following update to its databases.

### PDQ

The PDQ (Physician Data Query) database, which includes information on state-of-the-art treatment of cancer and cancer clinical trials, has had the following changes:

1. The addition of approximately 6,000 closed protocols (i.e., those clinical trials that are no longer accepting patients) from CLINPROT to PDQ is expected this spring. These protocols will be separate from the 1,500 active clinical trials, allowing clinicians and researchers to retrieve either open or closed studies.
2. AIDS clinical trials not directly related to cancer treatment have been removed from PDQ and CLINPROT. Only those clinical trials that are treating patients with AIDS-related malignancies remain. Searchers should consult the MEDLARS file, AIDSTRIALS, for a comprehensive information source on AIDS clinical trials. See the July 1989 *Technical Bulletin* for an article on AIDSTRIALS.
3. Five new Patient Information statements have been written and will be submitted for approval to the PDQ Editorial Board. It is expected that they will be online by April. Topics are: cervix, rectum, vagina, colon, and retinoblastoma.
4. General eligibility and protocol-specific criteria, which will enable searchers to obtain a more precise protocol retrieval, are currently under development.
5. Work is underway to display the cost incurred from an online PDQ session at the end after logging off.
6. In the future, those persons who use command stacking to skip menus will be able to command stack after typing a drug or diagnosis.

7. A new and comprehensive PDQ User Guide is expected to go on sale this spring. Look for announcements in the *Technical Bulletin*.

8. Access to PDQ is available when using GRATEFUL MED. To search PDQ with Version 5.0:

1. Be sure SETUP for PDQ is configured (Version 5.0 requires separate configuration for the different MEDLARS services) and that you have entered your special PDQ password along with your User ID code.
2. From GRATEFUL MED's ACTION screen, select DIRECT. You will then see a screen allowing you to choose PDQ/CANCER. You will then see two screens describing PDQ. Follow the instructions to begin your PDQ search.

PDQ has user-friendly menus and can be readily searched using GRATEFUL MED.

Automatic connection to PDQ is not available with the first Macintosh version of GRATEFUL MED. This should be available with the next version. It is possible, however, to use Version 1 to search PDQ - see pages 4-17 of the Users Guide for instructions.

### CANCERLIT

CANCERLIT is a large file containing more than 700,000 citations and abstracts of published literature covering all aspects of cancer from 1976 forward. CANCERLIT is available using GRATEFUL MED. Select OTHER from the ACTION screen and then select CANCERLIT.

### CLINPROT

Last year, NCI announced that the CLINPROT database would be discontinued after all closed protocols were added to PDQ. The decision to discontinue has been delayed indefinitely and the database is still available.

## POPLINE Update

### DATABASE UPDATE

The POPLINE database contained 172,830 citations at the close of 1989. There are four groups that contribute to the building of the POPLINE database. They include the Population Information Program at The Johns Hopkins University, the Center for Population and Family Health at Columbia University, the Office of Population Research at Princeton University and the Carolina Population Center at The University of North Carolina at Chapel Hill. POPLINE is updated monthly and is fully rebuilt once a year.

### CHANGES IN SEARCH CAPABILITIES

In an effort to make searching easier and more accurate, The Johns Hopkins University has developed a computer program which automates a part of the indexing process. The program is called "Automatic Redundant Indexing" (ARI) and results in an "explode" capability when you enter a POPLINE keyword without an asterisk (\*).

POPLINE documents are indexed with keywords from the POPLINE Thesaurus, a vocabulary of 2,000 terms specific to the population/family planning field. POPLINE indexers select the most specific keywords to describe a document and asterisks are automatically added to these keywords. The new ARI program automatically adds all keywords broader than that specific keyword--all the way up the appropriate

hierarchy. For example, if \*CONDOM is assigned as a keyword, FAMILY PLANNING, CONTRACEPTION, CONTRACEPTIVE DEVICES, and BARRIER METHODS, which are broader than CONDOM are added to the record as non-asterisked keywords. (See section of hierarchy below.)

**FAMILY PLANNING**  
**CONTRACEPTION**  
**CONTRACEPTIVE DEVICES**  
**BARRIER METHODS**  
**CERVICAL CAP**  
**CONDOM**  
**VAGINAL DIAPHRAGM**  
**VAGINAL SHIELD**

Therefore, if you want information about barrier methods or about specific forms of barrier methods, you can search BARRIER METHODS (KW) without the asterisk to retrieve records in which the keywords BARRIER METHODS or \*CERVICAL CAP or \*CONDOM or \*VAGINAL DIAPHRAGM or \*VAGINAL SHIELD appear. See Figure 1.

The ARI program was implemented with the 8907 (EM) POPLINE update and was applied to the entire database during the year-end processing and rebuilding of POPLINE that took place in March 1990.

While all keywords are mapped to MeSH headings, searchers are advised to use POPLINE keywords for the most specific search retrieval. The POPLINE Thesaurus is available free of charge from Population Information Program, Johns Hopkins University, 527 St. Paul Place, Baltimore, MD 21202.

PROG:  
YOU ARE NOW CONNECTED TO THE POPLINE FILE.  
SOME ITEMS MAY NOT BE IN THE NLM COLLECTION; PLEASE USE SERLINE OR  
CATLINE FOR AVAILABILITY INFORMATION.

SS 1 /C?  
USER: barrier methods ● Retrieves citations with the mapped-to-MeSH  
term CONTRACEPTION.

PROG:  
SS (1) PSTG (17683)

SS 2 /C?  
USER: \*barrier methods ● Retrieves citations with the mapped-to-MeSH  
term \*CONTRACEPTION, where the term is a  
major point of the article.

PROG:  
SS (2) PSTG (13023)

SS 3 /C?  
USER: (kw) barrier methods ● Retrieves citations with the keywords:  
BARRIER METHODS or \*CERVICAL CAP or \*CONDOM  
or \*VAGINAL DIAPHRAGM or \*VAGINAL SHIELD

PROG:  
SS (3) PSTG (1183)

SS 4 /C?  
USER: (kw) \*barrier methods ● Retrieves citations with the keyword \*BARRIER  
METHODS, where the term is a major point of  
the article.

PROG:  
SS (4) PSTG (773)

Figure 1

## SERLINE Update

### ABSTRACTING AND INDEXING FIELD CHANGES

Several changes were made to the Abstracting and Indexing tags (AI) in SERLINE during 1989 and others are planned for early 1990.

The following tags were deleted from the AI field:

#### SCI (Science Citation Index)

The SCI tag was removed because of the difficulties in maintaining accurate and current data for this tag.

#### TOX (TOXLINE)

This tag was originally added to SERLINE in July 1987 for the 1545 journals most frequently cited in TOXLINE in 1986. Since that time TOXLINE has been reconfigured (see the February 1989 *Technical Bulletin*) and the AI tag of TOX no longer fully reflects the serial titles that are in the TOXLINE and TOXLIT files. TOXLINE and TOXLIT are derived files created by the merger of data from a variety of sources. Most of the biomedical titles were originally indexed for other abstracting and indexing services which are already identified in SERLINE with AI tags of IM (Index Medicus), BA (Biological Abstracts) and/or CA (Chemical Abstracts).

#### EA (English Abstract)

This tag has been removed from the Abstracting and Indexing field because it does not logically belong there. The data will be moved to a new field, 'English Abstract Indicator' (EA) in the spring of 1990. All foreign-language journal titles that have been identified as regularly including English-language abstracts will then contain a value of 'A' in the EA field.

### ABSTRACTING AND INDEXING TAGS ADDED

#### AGL

This tag flags biotechnology journals in SERLINE that are indexed by the National Agricultural Library (NAL) for the AGRICOLA database (AGRICultural OnLine Access). The addition of the 'AGL' tag to SERLINE is part of a cooperative arrangement between NLM and NAL to ensure effective coverage of the biotechnology

literature from both the health and agriculture perspectives. While the SERLINE AI tags for the other major abstracting and indexing services are added to all titles in SERLINE to which they apply, the 'AGL' tag is currently being used to identify only the biotechnology titles indexed in AGRICOLA rather than all titles covered by AGRICOLA.

Some of the titles with a tag of 'AGL' are out of scope for the NLM collection. These titles will have a Call Number (CA) value of 'Regional Holdings' and a General Note (GN) indicating "This title is not in the NLM collection." Users can ascertain which resource or major biomedical libraries collect the title in question with the PRT LOC command which displays locator information.

#### BTC (Biotechnology)

Beginning in the spring of 1990, titles indexed for NLM's new database BIOTECHSEEK (BIOSEEK) will have an AI tag of BTC. In addition, these titles will have a Special List Indicator (LI) value of 'B'.

#### HIS (HISTLINE)

Approximately 200 journals that are routinely scanned and selectively indexed for the HISTLINE database are now tagged with 'HIS' in the AI field. The 'HIS' tag in SERLINE does not cover all journal sources for HISTLINE citations, but identifies the core group of journals regularly scanned and indexed for HISTLINE. Currently, NLM owns all of the SERLINE titles with an AI tag of 'HIS'.

### PERMANENT PAPER NOTICE

Beginning with the 1990 issues of the List of Journals Indexed in Index Medicus (LJI) and the List of Serials Indexed for Online Users (LSIOU), entries for titles currently indexed for Index Medicus known to be printed on acid-free paper and to carry a notice to that effect contain the designation 'ACID-FREE'. This information will also be available in SERLINE in the spring of 1990.

To report other journals printed on acid-free paper or to obtain information about permanent paper and how to indicate its use, contact: Special Projects Officer, National Library of Medicine, 8600 Rockville Pike, Bethesda, MD 20894.

## TOXLINE Update

The 1990 rebuilding of TOXLINE was completed in March and the file was made available at the end of the month. This year only the TOXLINE and TOXLINE65 databases will be rebuilt. TOXLIT and TOXLIT65 will continue to contain only information from Chemical Abstracts Service (the CA subfile), with monthly updates added to the front file, TOXLIT.

The primary purpose of the TOXLINE rebuilding is to replace the TOXBIB subfile, that portion of TOXLINE and TOXLINE65 that comes from MEDLINE, with records containing 1990 MeSH vocabulary. In addition, some other subfiles will also be replaced in the new TOXLINE files. Briefly, these changes are:

### EMIC and ETIC

The Environmental Mutagen and Teratology Information Centers have undergone recent management changes. These two subfiles will be replaced with new versions taken from the EMICBACK and ETICBACK files recently made available on the TOXNET system. This will provide updated records as well as additional records to the TOXLINE files.

### NIOSH

The TOXLINE NIOSHTIC subfile will be replaced with a new version made available to NLM by the National Institute for Occupational Safety and Health (NIOSH). Originally, TOXLINE received from NIOSH all records added to NIOSHTIC from January 1984 forward (this constituted about one-fourth of the complete NIOSHTIC file), with quarterly updates. Because of NIOSH's rebuilding procedures, some additional records as well as updated versions of some existing records will be available in the rebuilt TOXLINE and TOXLINE65 files.

### EPIDEM

A new version of the file on food additives has been provided to TOXLINE by the U.S. Food and Drug Administration (FDA), and this version will appear in the TOXLINE file in its entirety (regardless of publication year).

### TSCATS

In 1988, a subfile comprising Toxic Substances Control Act Test Submissions (TSCATS) to the U.S. Environmental Protection Agency (EPA) was added to TOXLINE. A replacement version of this subfile will be used in the rebuilt TOXLINE. Substantially more records with abstracts are anticipated. Searchers are reminded that the records in TSCATS are derived from EPA-mandated and industry-submitted information; the original reference may be ordered from NTIS with the Order Number (OD) field number from the TOXLINE record.

### CRISP

The CRISP subfile, which includes U.S. Public Health Service-supported research in toxicology, will be totally replaced, and updated versions of fiscal years 1987 and 1988 records will be provided. In addition, fiscal year 1989 records will be included, some in a preliminary form without abstracts.

### BIOSIS

This subfile is created by running a search profile against Biological Abstracts for toxicology-related information on environmental health. Records in this subfile added to TOXLINE since August 1985, when this subfile scope was substantially expanded, have MeSH headings assigned by a mapping of BIOSIS concept codes and biosystematic codes. These MeSH headings have been updated with 1990 MeSH as part of the 1990 TOXLINE rebuilding.

## TOXNET: Update 1989/ Forecast 1990

1989 was a banner year for the TOXNET system, which grew from three to seven files, experienced a large upsurge in usage, moved to two large-capacity Data General MV/10000 minicomputers, and saw the implementation of some unique searching features. Joining HSDB (Hazardous Substances Data Bank), CCRIS (Chemical Carcinogenesis Research Information System) and RTECS (Registry of Toxic Effects of Chemical Substances) were:

- o DBIR (Directory of Biotechnology Information Resources),
- o ETICBACK and EMICBACK (the back files of the Environmental Teratology Information Center and the Environmental Mutagenesis Information Center respectively)
- o TRI (Toxic Chemical Release Inventory).

A brief description of each new databank follows.

### DBIR

DBIR is TOXNET's first file to signal an expansion in subject matter beyond toxicology and hazardous chemicals. It offers the biotechnology community an online directory of databases, networks, collections and repositories of cellular and subcellular elements, organizations, and publications, as well as identifying groups dealing with the nomenclature of biotechnology and molecular biology. This database is also available as a component of DIRLINE.

### ETICBACK and EMICBACK

ETICBACK and EMICBACK are the first bibliographic databases to be included in TOXNET. ETICBACK contains over 46,000 references to the literature on chemical, biological, or physical agents that may cause birth defects or are otherwise implicated in developmental and reproductive toxicology. With over 67,000 references, EMICBACK concentrates on the literature of chemical, biological, and physical agents that have been tested for genotoxic activity. Both files cover the years 1950-1988. These databases are also available as component subfiles of TOXLINE.

### TRI

TRI87, also known as TRI, results from a collaborative venture between the EPA (Environmental Protection Agency) and NLM, and has generated perhaps the most excitement concerning TOXNET's 1989 files. TRI87 contains data on toxic chemicals released to the environment or transferred to waste sites in 1987. Mandated by the Emergency Planning and Community Right-to-Know Act, this file is based upon information submitted by industrial facilities around the country to EPA. The file and its data have been featured widely in newspapers and other media programs including a three-part series in USA TODAY. The file had been eagerly anticipated and is now being frequently used by many groups, including industry and state and local regulatory communities. Moreover, citizens concerned about the pollution of their neighborhoods are finally able to retrieve relevant information from a publicly available online resource.

TRI87 has a number of unique features, not the least of which is the ability to perform ranging and statistical operations, such as calculating sums, means, medians, percentiles, and standard deviations. These features will be transferred, where appropriate, to other TOXNET files. In addition, a menu-driven screen sequence was developed as an interface for the novice user. This leads the user step-by-step through a series of questions and circumvents the necessity of knowing the command language or special training. The familiar, direct command language mode of searching is also available for experienced searchers. Similar menus are being developed for other TOXNET files. TRI88, containing data submitted to EPA for the 1988 reporting year, will join TOXNET in the spring.

### NEW 1990 FEATURES

In March 1990, a new file, IRIS (Integrated Risk Information System) was made available. IRIS will contain health risk and EPA regulatory information on nearly 400 chemicals. See the article in the upcoming March *Technical Bulletin* for more information. Later this year, expect to see GENE-TOX (Genetic Toxicology Program File), TOXPROFILES (Agency for Toxic Substances and Disease Registry (ATSDR) Toxicology Profiles), and CDF (Chemical Directory File) on TOXNET. GENE-TOX will provide information on the evaluation of selected bioassays in mutagenicity and presumptive carcinogenicity. TOXPROFILES will offer portions of the ATSDR

Toxicological Profiles, which are intended to characterize succinctly the toxicological and health effects of hazardous chemicals. Standing at the apex of the TOXNET umbrella will be CDF, a dictionary and locator database to the many chemicals appearing in TOXNET files and assorted regulatory lists.

The EMT (Emergency Medical Treatment) field, added in February 1990, has been a useful addition to the HSDB file. Derived from the POISINDEX System of MICROMEDEX, Inc., it includes information related to life support, clinical effects, laboratory analysis, treatment overviews and range of toxicity. Finally, 1990 will see the implementation of Cross File Searching and Printing. This will enable a user to search across or print from a number of TOXNET files at the same time.

TOXNET files may be searched using command language. GRATEFUL MED searchers can access them using the software's direct searching option. However, of the seven files available on TOXNET, only TRI has menu driven screen searching. GRATEFUL MED searchers unfamiliar with command language searching may connect directly to TOXNET and then type L to list the choices and select 7 for TRI. For further details see the January 1990 *Technical Bulletin* Appendix A.

#### **HSDB Tapes Available**

HSDB (Hazardous Substances Data Bank) tapes are now available through NTIS (National Technical Information Service) upon completion of licensing agreements with NLM. (See the January 1990 *Technical Bulletin* page 4.)



## NEW PHONE NUMBERS

### MEDLARS TOLL-FREE NUMBER AVAILABLE IN MARYLAND

The MEDLARS Management Section Service Desk toll-free number 1-800-638-8480 is now available to callers from Maryland. Previously, this number was only available to callers from other states. A new queuing feature has been added to the 800 lines, so that instead of getting a busy signal, users may (if they choose) wait to have their questions answered in turn.

### NATIONAL LIBRARY OF MEDICINE ANNOUNCES NEW 800 NUMBER

On December 5, 1989, the National Library of Medicine (NLM) instituted a voice processing information center that will provide general information about the Library and its services 24 hours a day. Using Aspen Voice Processing Systems by Octel Communications Corporation, NLM designed a system that directs callers with touch-tone phones to a series of recorded messages in the following primary areas: NLM General Information, Reference Services, Document Delivery, and Online Access and Specialized Information Services (toxicology). (Callers with rotary phones may call the new toll-free number but will be unable to select options; after a short wait, they will be connected to staff in the Library's Public Information Office.)

The toll-free number is 1-800-272-4787. The following selections may be made using your touch-tone phone.

Press 1 for directions to the Library in Bethesda, MD, NLM Reading Room hours, or general information about NLM's programs.

Press 2 for reference or preservation information.

Press 3 for information about NLM's interlibrary loan policy, DOCLINE system, or general collections onsite services.

Press 4 for information on the MEDLARS online databases or assistance in the area of toxicology.

With all selections, callers are given the option to speak to a staff person, if the call is placed during NLM regular business hours (8:30 AM - 5:00 PM ET, M-F, excluding Federal government holidays). If you call outside the listed service hours, you may leave your name and address to have an information packet sent to you or you may leave a brief message.

All 800 numbers to the library including the DOCLINE Service Desk (1-800-633-5666) are available to callers from all 50 states and Puerto Rico.

### NTIS TOLL-FREE BILLING PHONE NUMBER

To accommodate the MEDLARS users with billing/deposit account/purchase order information and questions, the National Technical Information Service (NTIS) has installed a toll-free phone number, 1-800-423-9255. This number is for NLM customers only, including MEDLARS, ILL's, and domestic tape vendors. The toll-free number is available for U.S. users during the hours of 8:00 a.m. to 5:00 p.m. ET, M-F. No recording is available at this time to take messages on calls received after business hours. This toll-free number is for billing questions only, orders must still be placed through the number 703-487-4650

## Special Code Programs

In addition to regular MEDLARS User ID codes for online searching, NLM makes several special code programs available. They are described briefly below.

### 1. DEMONSTRATION CODES

To assist online searchers in publicizing MEDLARS search services, a limited number of non-billed User ID codes/passwords are made available to use when demonstrating the MEDLARS databases. A demonstration code may be requested for short demonstrations to show someone how the system works, in-house staff and student orientations, etc., by calling the MMS Service Desk during business hours.

Searchers requesting a demonstration code will be asked to provide the following information about themselves and the upcoming demonstration: their regular MEDLARS User ID code; the purpose of the demonstration; the make-up of the audience (e.g., physicians, nurses, medical students); and the anticipated size of the audience. Demonstration codes are not intended to be used for training of in-house staff or other training-related activities. (See the third item for information about training codes.) However, these codes are made available for limited practice on new ELHILL command features.

### 2. STUDENT CODE PROGRAM

This program is designed to encourage the use of MEDLARS databases by students. Individual students or educational institutions may apply. Student codes are available to individual students from undergraduate level through residency and fellowship programs, regardless of the discipline of study (medicine, information/library science, chemistry, etc.). Institutions may obtain student codes for various courses from the high-school level through online search training at any advanced level. Instructors may also obtain a student code to help them prepare to teach online searching courses. The major benefit of the student codes is **reduced rates** for MEDLARS computer system usage (about half of regular charges). These codes are not non-billed codes.

Institutions may request codes for a one-year period with annual renewals. Codes provided to institutions may be "capped" or limited to a specified number of connect hours for six-month intervals. Individuals requesting student codes receive codes billed at the reduced rates for a non-renewable period of two years. After the two-year period, an individual student code is

automatically converted to a regular billed code. At the present time, NLM-assigned student codes are limited to use within the United States; the student code program in Canada is administered by the International MEDLARS Center, the Canada Institute for Scientific and Technical Information (CISTI). Canadians should contact CISTI directly. If you have any questions, or need an application form, please call the MMS Service Desk.

### 3. TRAINING CODES

Non-billed online training codes are available to instructors teaching a course on searching MEDLARS databases. Non-billed codes are also available for their students. These codes are limited to 6 hours over a time period not to exceed three weeks.

#### GRATEFUL MED TRAINING CODES

Trainers may obtain non-billed codes for use when teaching online searching using GRATEFUL MED. These codes should be requested using the form on page 118, "Request for Online Training Codes." You may also call the MMS Service Desk to request codes. A code may be used by the trainer for a few hours to prepare for the actual training. Codes may be provided to the students for use during or after the class.

#### BASICS OF SEARCHING MEDLINE TRAINING CODES

Non-billed training codes are also available upon request for trainers and participants in the course "The Basics of Searching MEDLINE". This course provides an introduction to the basic command language searching of MEDLINE. The form on page 118 called "Request for Online Training Codes" may be used to obtain these codes. Trainers teaching the Basics should continue to complete "Profile of Participants" forms (see Appendix ) at the conclusion of their training class. One form should be completed for each participant.

The training manual The Basics of Searching MEDLINE may be purchased by individuals and used as a self-instructional workbook to learn to search MEDLINE. Individuals engaging in self study using this workbook may also request a non-billed code using the form on page 118. The workbook must be purchased from the National Technical Information Center (Order No. PB89-146179/GBB; price \$20.50 + \$3.00 handling per order).

## Master Accounts for MEDLARS Billing

As announced at the NLM Online Users' Meeting during the 1989 Medical Library Association annual meeting in Boston, recent enhancements to the NLM MEDLARS billing system now enable multiple codes to be "mapped" (i.e., billed) to one "Master" account. The codes can either be existing codes or new codes. This new feature allows greater flexibility in managing MEDLARS accounts. Two examples are as follows:

a. Your office regularly does searches for different clients and SHOW COST logs are used to charge back the MEDLARS online costs to the proper company.

**SOLUTION:** A separate code for each client that is "mapped" to a "Master" code (account) for billing.

b. There are several searchers in your office and you (or your billing department) receive multiple invoices each month.

**SOLUTION:** Instruct NLM to "map" all the codes to a "Master" account to receive one invoice. Choose the User ID Code you want as the "Master".

For "Master" accounts, one summary invoice (or statement of account if you have a NTIS deposit account) will be received for any month during which any one of the "sub account" codes has usage. However, all transaction detail by database for each code (connect time, interactions, characters, etc.) will continue to be provided so that individual code usage can be tracked if desired.

The registered user for a code will continue to receive a separate invoice showing any outstanding balances for an existing code which has been added to a "Master Account" until the outstanding balance is paid in full. All charges incurred on the code after it has been added to the "Master Account" will be invoiced to the "Master Code". Therefore, two invoices for that code will be received until any outstanding balance is paid.

An application form for a Master Account is included on page 121. If you have any questions, please contact the MEDLARS Management Service Desk at 1-800-638-8480 from 8:30 a.m. to 5:00 p.m. ET, M-F.

# 1990 Annotated MeSH

## MeSH

### A Dynamic Preface

NLM has introduced several important changes in the arrangement and presentation of certain portions of the General Introduction section to the Annotated MeSH. This was done to make the material more meaningful and the practical applications more accessible. The major changes are discussed below.

### New Medical Subject Headings by Subcategory (p. I-57 to I-66)

As always, new MeSH headings are listed by specific subcategories. This year, for the first time, the broadest MeSH headings are given in parentheses alongside the corresponding subcategory tree numbers, to assist users in rapidly identifying the specific subject areas to which new MeSH terms have been added. For example:

A11 (CELLS)  
CHROMOSOMES, FUNGAL

C4 (NEOPLASMS)  
OSTEOCHONDROMA

### Topical Subheadings

The new 1990 policy for MeSH heading/subheading combinations offers greater freedom to both indexers in

describing the articles and to searchers in retrieving the references. Subheadings are now allowed on a heading-by-heading basis and are no longer restricted to an entire category or subcategory.

The Annotated MeSH has been revised accordingly: The once familiar "Alphabetic List of Topical Subheadings with Allowable Categories," has been eliminated. The same information is now available in the revised sections entitled "Topical Subheadings with Scope Notes, Abbreviations, and Allowable Categories" and "Topical Subheadings by Allowable Category."

### Topical Subheadings with Scope Notes, Abbreviations, and Allowable Categories (p. I-101 to I-109)

For each subheading, the two-letter mnemonic code used for online searching and the corresponding indexing abbreviation used in the annotations for the MeSH headings in the body of the Annotated MeSH are given in the right-hand margin. The year that the subheading entered the system follows the scope note. The categories of descriptors with which the subheadings may be used are found within parentheses; there have been many changes in this section since last year. In any case, these category designators only serve as general guidelines; when in doubt, searchers should check the Allowable Topical Qualifiers (AQ) field in the online MESH VOCABULARY File (File MESH) for the heading in question, as the authoritative source of reference. This field was added to the online MeSH Vocabulary File in early 1989. The AQ field includes all topical subheadings that are "legal" for usage with a particular MeSH heading. Topical subheadings are those describing a subject slant, e.g., surgery, therapy, adverse effects. See Figure 1.

```

SS 1 /C?
USER:
file mesh

PROG:
YOU ARE NOW CONNECTED TO THE MESH VOCABULARY (1990) FILE.

SS 1 /C?
USER:
advertising

PROG:
SS (1) PSTG (1)

SS 2 /C?
USER:
prt mh,mn,an,aq

PROG:

1
MH - Advertising
MN - L1.143.50
AN - only /econ /hist /legis /methods /stand /trends /util (if by
      MeSH definition)
AQ - CL EC HI LJ MT SM ST TD UT
    
```

Figure 1

The AN (Annotation) field contains an informative note about a descriptor, often showing permitted subheadings using the indexer abbreviation. The AQ (Allowable Topical Qualifiers) field shows the legal subheadings and their two-letter abbreviations. As you can see, SN is shown in the AQ field of the record for the MeSH heading ADVERTISING, so it is "legal" to use it in combination with this heading.

**Topical Subheadings by Allowable Category (p. I-109 to I-118)**

The general arrangement remains unchanged with respect to previous years; the 15 principal MeSH Tree categories are listed with the subheadings assigned to each. Now, however, each main subject category is broken down into either individual subcategories or ranges of subcategories with the majority of allowable subheadings which reasonably fit with each particular subcategory listed. Again, the final authority for which subheadings may be used with specific MeSH headings effective for 1990 indexing is the AQ field of File MeSH (online).

Entries for each of the subheadings are found in the body of Annotated MeSH. Due to the new 1990 policy, the parenthetical note indicating the allowable categories has been deleted from the subheading entry.

Example from 1989 MeSH:

/statistics & numerical data (E; F1-2; F4; H-N)

Example from 1990 MeSH:

/statistics & numerical data

Again, for general information on which categories are allowed with a subheading, check the list starting on page I-101. The printed Annotated MeSH for 1990 does not include the complete information on legal combinations; you should always try your search online. Your best and first approach for obtaining specific information is to check the AQ field in the MeSH VOCABULARY file for a particular MeSH heading.

Alternatively, you may use the NBRDET command in MEDLINE to see if there are any postings for that particular heading/subheading combination. See Figure 2.

```

SS 1 /C?
USER:
nbrdet advertising (mh)
PROG:

SELECT # POSTINGS TERM
1 2 *ADULT
2 1 *ADULT/PX
3 410 ADVERTISING
4 23 ADVERTISING/EC
5 8 ADVERTISING/HI
UP N OR DOWN N OR ENTER A SELECT COMMAND.

USER:
down 10
PROG:

SELECT # POSTINGS TERM
6 35 ADVERTISING/LJ
7 30 ADVERTISING/MT
8 4 ADVERTISING/SN
9 27 ADVERTISING/ST
10 22 ADVERTISING/TD
11 1 ADVERTISING/UT
12 288 *ADVERTISING
13 6 *ADVERTISING/EC
14 6 *ADVERTISING/HI
15 24 *ADVERTISING/LJ
UP N OR DOWN N OR ENTER A SELECT COMMAND.

USER:
select 8
    
```

Figure 2

However if you do not wish to use the online files, you could go through the following alternate steps to find the legal heading/subheading combinations in this sample search for articles on statistics on hospital advertising efforts.

1. Select the MeSH headings and subheadings you wish to use, in this case:

HOSPITALS,  
HOSPITAL ADMINISTRATION and  
ADVERTISING/STATISTICS & NUMERICAL  
DATA

2. Look up Advertising in the Annotated MeSH. Below is a reproduction of the MeSH entry.

**ADVERTISING**

L1 143.50

only /econ /hist /legis /methods /stand /trends /util (if by MeSH definition)

Note the annotation says "only..." and does not include "statistics & numerical data". Now look at the Tree Number which is L1.

3. Keeping in mind the L1 Tree Number, check the list beginning on p. I-101 for the general categories allowed

for the subheadings. On page I-107 is the entry for the subheading "statistics & numerical data". Figure 3 is a copy of the entry from this list. Note that the Tree Number L1 for advertising is not listed.

4. Finally, check yet another list of topical subheadings, this time by allowable category, on p. I-117. See Figure 3. You will see that in the L1 category SN is listed, indicating that it may be used with ADVERTISING. However, this list is descriptive not prescriptive, and gives no history of when a subheading began being used with a particular heading or category.

Indeed, you may want to consider keeping your 1989 Annotated MeSH for historical reference. Its lists entitled "Alphabetic List of Topical Subheadings with Allowable Categories" and "Topical Subheadings with Allowable Categories - By Category" define and trace the changes in subheading usage from 1966-1989; this information is no longer available in the 1990 Annotated MeSH. Referring to these lists might explain why your online retrieval of a MeSH heading/subheading combination only goes back several years. Referring to our example, see Figure 4 for the analogous entries in the 1989 Annotated MeSH:

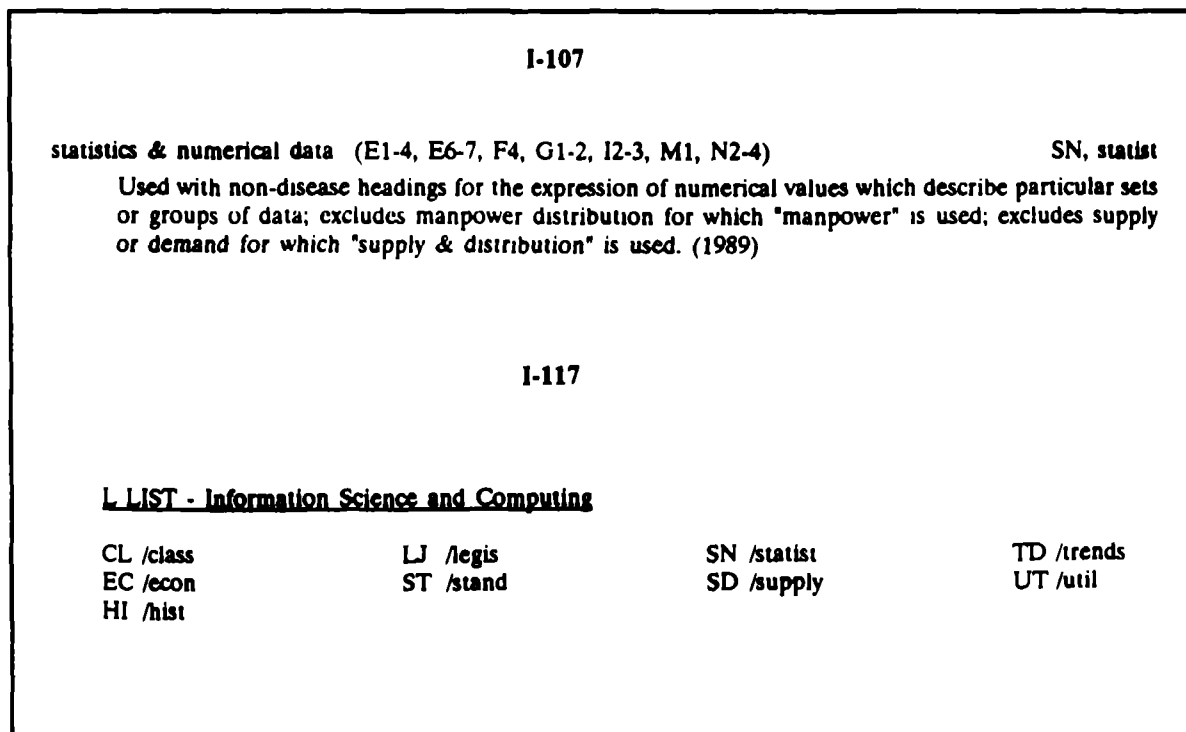


Figure 3 - 1990 Annotated MeSH Entries

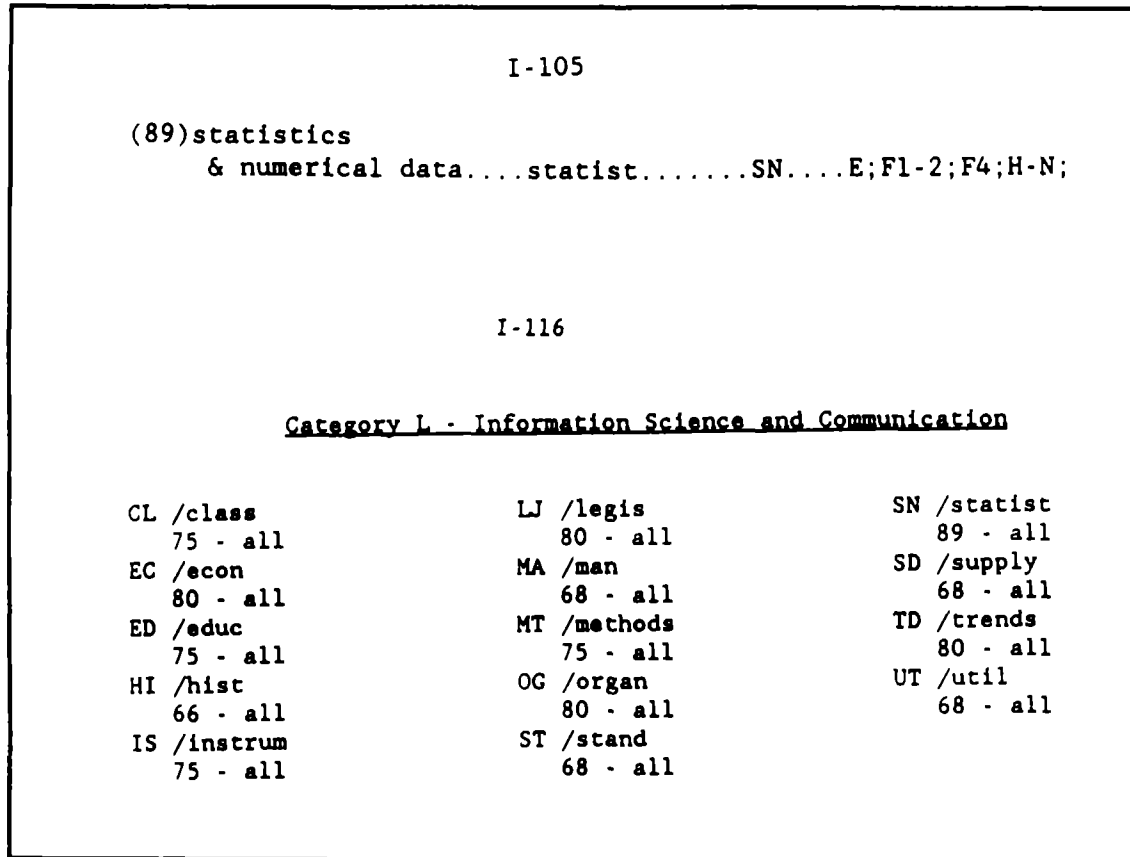


Figure 4 - 1989 Annotated MeSH Entries

Both charts indicate that the subheading was legal with Advertising (L1.143.50) as of 1989. Now you are fully prepared to search the concept in MEDLINE. A sample search is shown in Figure 5.

In summary, the easiest methods of checking out subheadings used with a particular heading are:

1. Directly search the MeSH heading/subheading online and see if you get any postings, or

2. Do a NBRDET command and select the combination if found or,

3. Search for the heading in File MESH and ask to PRT MH, MN, AN, AQ.

If you prefer to use the printed Annotated MeSH, you may obtain the same information by going through the steps detailed above. However, the online File MESH is the final authority and is the only way to be absolutely sure of which heading/subheading combinations are legal.

```

PROG:
YOU ARE NOW CONNECTED TO THE MEDLINE (1988 - 90) FILE.

SS 1 /C?
USER:
exp hospitals or exp hospital administration
PROG:
TIME OVFLW: CONT? (Y/N)

USER:
y
PROG:
SS (1) PSTG (8592)

SS 2 /C?
USER:
advertising/sn
PROG:
SS (2) PSTG (4)

SS 3 /C?
USER:
1 and 2
PROG:
SS (3) PSTG (3)

SS 4 /C?
USER:
prt include mh compr
PROG:

1
UI - 90128980
AU - Steiber SR
TI - Hospital sales forces are growing strong.
MH - Advertising/STATISTICS & NUMER. DATA ; Data Collection ;
      Hospitals ; Marketing of Health Services/*STATISTICS & NUMER.
      DATA ; United States
SO - Hospitals 1990 Feb 20;64(4):76, 78

2
UI - 89032261
AU - Steiber SR
TI - Advertising cuts represent marketing shakeout.
MH - Advertising/*STATISTICS & NUMER. DATA ; Budgets ; Data Collection
      ; *Financial Management ; *Financial Management, Hospital ;
      Marketing of Health Services/*STATISTICS & NUMER. DATA ; United
      States
SO - Hospitals 1988 Nov 20;62(22):46-7, 49

3
UI - 89032229
AU - Steiber SR
TI - Advertising: is the honeymoon over for budgets?
MH - Advertising/*STATISTICS & NUMER. DATA ; Data Collection ;
      *Hospital Administration ; Marketing of Health Services/*TRENDS ;
      United States
SO - Hospitals 1988 Nov 5;62(21):42
    
```

Figure 5



## Form Subheadings for Catalogers

Eighty-one of the form subheadings used by catalogers (e.g., /abstracts, /congresses, /dictionaries) will now appear in the Annotated MeSH just as do the topical subheadings. The style of the annotations will show:

- identification as a form subheading
- a brief definition taken from the catalogers' scope note in Appendix A
- related form subheading
- the catalogers' short form or abbreviation
- a date at the History Note
- an Online Note

Here is a typical annotation for a form subheading:

**/anecdotes**

Catalogers' form subheading only; under main headings, names of persons or named groups (Cat M) for collections of brief factual narratives; see also /humor; DF: ANEC

74

search policy: CATLINE, AVLINE only; Online Manual; use: main heading AND ANECDOTES (SH)

If the form subheading exists as a MeSH heading also, as is the case with ANECDOTES, in the Annotated MeSH the first listing will be for the MeSH heading with a note to Catalogers indicating the form qualifier /anecdotes is available.

### ANECDOTES

do not use /hist

**CATALOG: form qualif /anecdotes is available**

The second listing will be the form subheading shown with a slash.

When double forms like /bibliography - microfiche appear in the form subheadings list, the standard annotation reads:

### BIBLIOGRAPHY

... **CATALOG: form qualif /bibliography & double forms are available**

There are forty-two annotations giving this kind of information on form qualifiers for catalogers.

## Expanded Subheadings

The usage of subheadings has been expanded in 1990. More subheadings are allowed to be used or applied with even more MeSH headings than in the past. This is because beginning with 1990, subheadings are no longer assigned strictly by category. Subheadings are now assigned by the NLM on a heading-by-heading basis. To find out if a subheading can be used with a particular MeSH heading, searchers are now referred to the record for the MeSH heading in the MeSH database (file MeSH). The field of interest is the Allowable Topical Qualifiers (AQ field) and lists the subheadings that can be used with the MeSH heading. The lists in the front of the Annotated Alphabetic MeSH titled "Topical Subheadings by Allowable Category" show 61 subject categories and the subheadings assigned to those categories. These lists are provided as general guidelines only. The following highlights some of the expanded subheading assignments for 1990.

### 1. /psychology

This subheading has been extended to Category B2 (and other selected animals) for 1990. In general, it pairs most comfortably with veterinary, laboratory, and zoo animals, and some wild animals. It does not fit well with fish, for example, and has not been permitted with that group and others for which the combination is as unlikely. Not all of the MeSH annotations have been changed to reflect the permitted subheadings. If /psychology is not listed in the MeSH heading annotation for a B2 animal, check the AQ (Allowable Topical Qualifier) field of the online MeSH Vocabulary File record. If PX (the searching abbreviation for psychology as a subheading) is listed in the AQ field for that MeSH heading, then you may use /psychology with that MeSH heading to search for articles from 1990 forward.

### 2. /injuries

This subheading is now permitted with all the sports headings in Category I3. For example, to retrieve articles indexed for 1990 forward on injuries while boxing search: BOXING/injuries. Remember, however,

that retrieval of pre-1990 citations will still require the MeSH Heading for the specific sport plus the MeSH Heading ATHLETIC INJURIES. All affected headings have been annotated in the Annotated Mesh to reflect the change in policy. Figure 1 on the next page shows an example from the MEDLINE database.

Last year in 1989, the subheading /injuries was extended to Category B2. However, there was not enough time to update the annotations for each B2 heading in the body of the 1989 MeSH list. In the 1990 Annotated MeSH, the annotations for the headings in Category B2 have been updated to include /injuries.

### 3. /abnormalities

Last year in 1989, the subheading /abnormalities was extended to Category B2. However, there was not enough time to update the annotations for each B2 heading in the body of the 1989 MeSH list. In the 1990 MeSH, the annotations for the headings in Category B2 have been updated to include /abnormalities.

### 4. /epidemiology

For 1990, this subheading has been assigned to Category Z (Geographicals) as well as to Categories C and F3, which were allowed previously. A geographic heading/subheading combination will always occur on a record with another combination:

either a "disease term"/EPIDEMIOLOGY

NEOPLASMS/epidemiology  
MARYLAND/epidemiology

or a

"non-disease term"/STATISTICS &  
NUMERICAL DATA.

TOBACCO SMOKE POLLUTION/statistics &  
numerical data  
MARYLAND/epidemiology

See the article on New Geographic Terms on page 83 of this issue for more examples.

WELCOME TO THE NATIONAL LIBRARY OF MEDICINE'S ELHILL RETRIEVAL SYSTEM.  
 YOU ARE NOW CONNECTED TO THE MEDLINE  
 (1988 - 90) FILE.

SS 1 /C?

USER:

boxing/in

PROG:

SS (1) PSTG (2)

● To retrieve articles indexed  
 for 1990 forward.

SS 2 /C?

USER:

boxing and athletic injuries

PROG:

SS (2) PSTG (32)

● To retrieve articles indexed  
 prior to 1990.

SS 3 /C?

USER:

1 or 2

PROG:

SS (3) PSTG (34)

SS 4 /C?

USER:

prt ti, so, mh, em

PROG:

1

TI - Boxing-related injuries in the U.S. Army [letter]

MH - Boxing/\*INJURIES

MH - Human

MH - \*Military Personnel

MH - Time Factors

EM - 9003

SO - Milit Med 1989 Nov;154(11):581

2

TI - Boxing in the army [letter]

MH - Boxing/\*INJURIES

MH - Female

MH - Hospitalization

MH - Human

MH - Male

MH - \*Military Personnel

MH - United States

EM - 9001

SO - JAMA 1989 Oct 20;262(15):2089-90

3

TI - Amateur boxing [letter; comment]

MH - Athletic Injuries/\*PREVENTION & CONTROL

MH - \*Boxing

MH - Human

EM - 8910

SO - JAMA 1989 Jul 28;262(4):499-500

4

TI - Why physicians should oppose boxing: an interdisciplinary  
 history perspective [editorial]

MH - Athletic Injuries/\*ETIOLOGY

MH - \*Boxing

MH - Crime

MH - Historical Article

MH - History of Medicine, 20th Cent.

MH - Human

MH - \*Physician's Role

MH - \*Role

MH - Violence

EM - 8906

SO - JAMA 1989 Mar 10;261(10):1484-6

Figure 1

## New Data Form Abbreviation

A list of abbreviated formats, or short forms, which may be used interchangeably instead of the full MeSH headings or entry terms appears in the introductory pages to the 1990 Annotated Alphabetic MeSH (see pages I-9 to I-13). One new data form abbreviation was added to MeSH for 1990: all headings and cross-references (print and non-print) with the word stem "biolog-" may be shortened to BIOL. See Figure 1 below.

**Note for GRATEFUL MED Searchers:** Data forms or ("short forms") save typing time for command-language searchers. However, selecting terms from MeSH via the F10 function key when using GRATEFUL MED to include them on your INPUT form screen for a search is the best way to search. The fact that the short form is not used when you select from the F10 key, makes no difference in your search retrieval or your search costs.

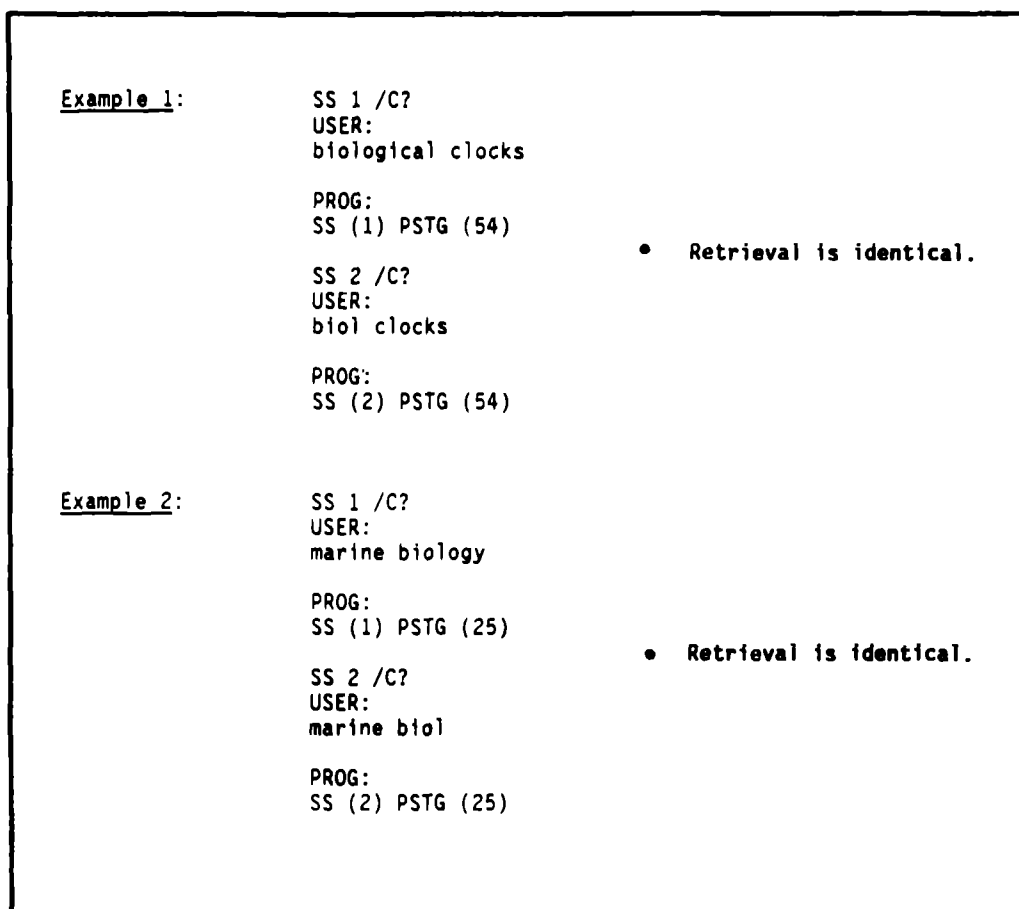


Figure 1

## **Duplicate Publication and Plagiarism**

Two new headings have been added to the Publishing Tree. Here they are with the MeSH scope note for each:

**Duplicate Publication** - Simultaneous or successive publishing of identical or near-identical material in two or more different sources without acknowledgment. It differs from reprinted publication in that a reprint cites

sources. It differs from PLAGIARISM in that duplicate publication is the product of the same authorship while plagiarism publishes a work or parts of a work of another as one's own.

**Plagiarism** - Passing off as one's own the work of another without credit.

# New Transplantation MeSH Headings for 1990

There are 11 new headings concerning transplantation for 1990. Below is a section of the 1990 MeSH

Tree Structure displaying the new transplantation terms. The new terms for 1990 are indicated with equals (=) signs.

E4 - PROCEDURES AND TECHNIQS-SURGICAL			
SURGERY, OPERATIVE			
THORACIC SURGERY			
THORACOTOMY			
THORACOTOMY	E4.920.925		
THYMECTOMY	E4.920.940		
TRACHEOSTOMY	E4.920.960	E4.879.938	E4.847.900
TRACHEOTOMY	E4.920.970	E4.847.907	
TRANSPLANTATION	E4.936		
BONE MARROW TRANSPLANTATION =	E4.936.40		
BONE TRANSPLANTATION =	E4.936.50	E4.587.350	
CORNEAL TRANSPLANTATION =	E4.936.60	E4.792.225	
KERATOPLASTY, PENETRATING =	E4.936.60.350	E4.792.225	
HEART TRANSPLANTATION=	E4.936.80	E4.782.376	E4.920.490.
HEART-LUNG TRANSPLANTATION =	E4.936.80.450	E4.782.376	E4.920.490
		E4.936.162.	E4.920.808.
KIDNEY TRANSPLANTATION =	E4.936.125	E4.887.774	
LIVER TRANSPLANTATION =	E4.936.150	E4.768.650	
LUNG TRANSPLANTATION =	E4.936.162	E4.920.800.	
HEART-LUNG TRANSPLANTATION =	E4.936.162.450	E4.782.376	E4.920.490
		E4.936.80.	E4.920.808.
PANCREAS TRANSPLANTATION =	E4.936.175	E4.768.725	
REPLANTATION	E4.936.494		
TOOTH REPLANTATION	E4.936.494.711	E4.833.876	E4.397.898
SKIN TRANSPLANTATION =	E4.936.525		E6.892.876
TRANSPLANTATION, AUTOLOGOUS	E4.936.664		
SURGICAL FLAPS	E4.936.664.890	E4.860.887	
TRANSPLANTATION, HETEROLOGOUS	E4.936.764		
TRANSPLANTATION, HETEROTOPIC =	E4.936.800		
TRANSPLANTATION, HOMOLOGOUS	E4.936.864		
TRANSPLANTATION, ISOGENEIC	E4.936.864.700		

Figure 1

Ten of the 11 new terms are pre-coordinated "organ" terms. For example, NLM has pre-coordinated or combined the heading for the organ, e.g., SKIN, with the subheading "transplantation" to make the new MeSH heading SKIN TRANSPLANTATION. To search for this concept prior to 1990, it is necessary to search for the MeSH Heading/subheading combination e.g., SKIN/transplantation.

These new headings will retrieve articles indexed for 1990 forward. The annotation for each heading in the Annotated MeSH will contain "90" as a History Note to indicate that the heading is new for 1990.

See Figure 2.

The History Note indicates that this is a new term for 1990. It was also a heading from 1960-1965. MEDLINE goes back to 1966 so online users would not use this heading for older material. Searchers of the printed Index Medicus could use this heading from 1960-1965.

To determine which heading was used before 1990, you would need to check the list titled "New Medical Subject Headings with Previous Indexing - 1990" in the front of the Annotated MeSH, 1990. See Figure 3.

**SKIN TRANSPLANTATION**  
 E4 936.525  
 /immunol /pathol /physiol permitted: do not use /util except by MeSH  
 definition: do not coord with TRANSPLANTATION, AUTOLOGOUS or  
 TRANSPLANTATION, HETEROTOPIC unless particularly discussed.  
 SURGICAL FLAPS is also available: see note there  
 90; was heading 1960-65  
 see related  
 X SURGICAL FLAPS  
 X DERMATOPLASTY  
 X GRAFTING, SKIN  
 X TRANSPLANTATION, SKIN

Figure 2

From the "New Medical Subject Headings with Previous Indexing - 1990" section in the front of the Annotated MeSH.

<u>New Heading</u>	<u>Previously-Indexed-Under Heading</u>
SKIN TRANSPLANTATION	SKIN/transplantation (66-89)

Figure 3

From the "New Medical Subject Headings with Previous Indexing - 1990" section in the front of the Annotated MeSH.

**New Heading**

**SKIN TRANSPLANTATION**

**Previously-Indexed-Under Heading**

**SKIN/transplantation (66-89)**

Alternatively you could look at the Previous Indexing field (PI) in the online MESH VOCABULARY file for this information (use File MESH).

Figures 4 and 5 are illustrations of searches on the concept of skin transplantation. In Figure 4, we searched the current MEDLINE database which contains 1988-1990 citations for skin transplantation combined with the concept burns. In the current MEDLINE database, use the new MeSH heading of SKIN TRANSPLANTATION to retrieve articles indexed from 1990 forward. Then, still in MEDLINE, use SKIN/TR to retrieve articles indexed earlier.

Figure 5 shows a GRATEFUL MED search of MEDLINE for the concept of skin transplantation only. In GRATEFUL MED it is necessary to "or" the two terms together on a subject line beginning the line with a forward slash.



WELCOME TO THE NATIONAL LIBRARY OF MEDICINE'S ELHILL RETRIEVAL SYSTEM. YOU ARE NOW CONNECTED TO THE MEDLINE (1988 - 90) FILE.

SS 1 /C? USER:  
 skin transplantation      ● We expected more retrieval. Therefore  
 PROG:                              we go into the MESH VOCABULARY FILE to  
 SS (1) PSTG (155)                      find out the date this heading became  
    available and the prior indexing.

SS 2 /C?  
 USER:  
 tfile mesh  
 PROG:  
 YOU ARE NOW CONNECTED TO THE MESH VOCABULARY (1990) FILE.

SS 2 /C?  
 USER:  
 skin transplantation      ● The tfile and return commands are used  
 PROG:                              to transfer to the MESH file and return  
 SS (2) PSTG (1)                      back to the MEDLINE file without  
    erasing or losing search results.

SS 3 /C?  
 USER:                              ● The History Note (HN) field indicates  
 prt mh, hn, ms, pi                      that SKIN TRANSPLANTATION is a new  
 PROG:                              term for 1990. It was a heading from  
    1960-1965 before MEDLINE became  
    available online.

1 (MESH VOCABULARY)  
 MH - Skin Transplantation  
 HN - 90; was heading 1960-65  
 MS - The grafting of skin in humans or animals from one site to  
       another to replace a lost portion of the body surface skin  
 PI - Skin/transplantation (66-89)

SS 3 /C?  
 USER:  
 return med  
 PROG:  
 YOU ARE NOW CONNECTED TO THE MEDLINE (1988 - 90) FILE.

SS 2 /C?  
 USER:  
 skin/tr                              ● To retrieve articles indexed before  
 PROG:                              1990 we search for SKIN/TR as indicated  
 SS (2) PSTG (654)                      in the Previous Indexing (PI) field of  
    the above MESH VOCABULARY FILE record.

SS 3 /C?  
 USER:  
 1 or 2  
 PROG:  
 SS (3) PSTG (809)

Figure 4A

SS 4 /C?  
 USER:  
 exp burns                                   The MESH Heading BURNS is EXPLODED to  
 PROG:                                       retrieve articles indexed to BURNS as  
 SS (4) PSTG (1877)                       well as the MeSH Headings indented under  
   BURNS. This set is then combined with  
   the skin transplantation set.

SS 5 /C?  
 USER:  
 3 and 4  
 PROG:  
 SS (5) PSTG (164)

SS 6 /C?  
 USER:  
 5 and human                               Our search is limited to English  
 PROG:                                       language articles about humans.  
 SS (6) PSTG (154)

SS 7 /C?  
 USER:  
 6 and not for  
 PROG:  
 SS (7) PSTG (97)

SS 8 /C?  
 USER:  
 prt ti, so, mh, em  
 PROG:

1

TI - Does rapid wound closure improve survival in older patients  
      with burns?  
 MH - Accidents, Home  
 MH - Age Factors  
 MH - Aged  
 MH - Aged, 80 and over  
 MH - Burns/MORTALITY/PATHOLOGY/\*SURGERY  
 MH - Human  
 MH - Length of Stay  
 MH - Middle Age  
 MH - Regression Analysis  
 MH - \*Skin Transplantation  
 MH - Survival Analysis  
 MH - Time Factors  
 MH - West Virginia/EPIDEMIOLOGY  
 MH - Wound Healing  
 EM - 9004  
 SO - Am Surg 1990 Jan;56(1):57-60

2

TI - Sensory loss over grafted areas in patients with burns.  
 MH - Adult  
 MH - Burns/\*PHYSIOPATHOLOGY/SURGERY  
 MH - Female  
 MH - Human  
 MH - Male  
 MH - Nervous System Diseases/ETIOLOGY  
 MH - Sensation/\*PHYSIOLOGY  
 MH - Skin/\*INNERVATION  
 MH - Skin Transplantation/\*PHYSIOLOGY  
 EM - 9004  
 SO - J Burn Care Rehabil 1989 Nov-Dec;10(6):536-8

Figure 4B

```

20
TI - Application of single-donor fibrin glue to burns.
MH - Adult
MH - *Aprotinin
MH - Blood Donors
MH - Burns/*SURGERY
MH - Drug Combinations
MH - *Factor XIII
MH - *Fibrinogen
MH - *Hemostasis, Surgical
MH - Human
MH - Risk Factors
MH - Skin/*TRANSPLANTATION
MH - *Thrombin
MH - *Tissue Adhesives
MH - Wound Healing
EM - 8905
SO - J Burn Care Rehabil 1988 Nov-Dec;9(6):619-22

21
TI - Lower leg reconstruction using a sural fasciocutaneous flap.
MH - Adolescence
MH - Adult
MH - Aged
MH - Arteries/TRANSPLANTATION
MH - Burns/SURGERY
MH - Cicatrix/*SURGERY
MH - Fascia/TRANSPLANTATION
MH - Female
MH - Human
MH - Knee Injuries/SURGERY
MH - Leg/BLOOD SUPPLY
MH - Leg Injuries/*SURGERY
MH - Leg Ulcer/*SURGERY
MH - Male
MH - Microsurgery/*METHODS
MH - Skin/TRANSPLANTATION
MH - *Surgical Flaps
EM - 8912
SO - Ann Plast Surg 1989 Aug;23(2):97-103
    
```

Figure 4C

INPUT YOUR SEARCH MEDLINE

FILL IN THE APPLICABLE LINE(S). TO TYPE AUTHOR'S NAME IN THE AUTHOR LINE,  
PRESS **←** TO GO TO NEXT LINE. FOR HELP PRESS **HOME**. PRESS **ESC** TO RESTORE.

AUTHOR NAME  
 TITLE LINE  
 SUBJECT TERMS  
 LANGUAGE  
 INDEXED  
 FULL TEXT  
 ENGLISH ONLY  
 REVIEW ONLY  
 JOURNAL OFFER

ENTER TITLE WORDS

ENTER DECS TO GET RESULTS OR E7 FOR BROWSE TERMS

/skin transplantation or skin/tr

Figure 5 - GRATEFUL MED Search

## AIDS-Related Terminology for 1990

### HIV SEROPREVALENCE, HIV INFECTIONS & AIDS DEMENTIA COMPLEX

Three new MeSH headings in the area of AIDS for 1990 are: HIV SEROPREVALENCE, HIV INFECTIONS and AIDS DEMENTIA COMPLEX.

HIV SEROPREVALENCE is a new AIDS-related MeSH heading for 1990. It represents the study of the number of cases where the human immunodeficiency virus (HIV) is present in a specific population at a specific time. This term is in the G3 tree (Environment and Public Health) and the E5 tree (Procedures and Technics-Miscellaneous) indented under Epidemiologic Methods.

In contrast, the existing MeSH heading, HIV SEROPOSITIVITY, is a C2 term (Diseases, Viral). It denotes the development of neutralizing antibodies in individuals who have been exposed to the human

immunodeficiency virus (HIV/HTLV-III-LAV). The determination of the number of persons with HIV SEROPOSITIVITY in a particular place and time allows an epidemiologist to calculate the HIV SEROPREVALENCE for that population.

HIV INFECTIONS is the MeSH heading used for infections caused by the AIDS virus, HIV. HTLV-III INFECTIONS is a "see" reference to HIV INFECTIONS. HIV INFECTIONS includes the spectrum of human immunodeficiency virus infections that range from asymptomatic seropositivity, through AIDS-related complex (ARC), to acquired immunodeficiency syndrome (AIDS). HIV INFECTIONS joins the already existing HTLV-I INFECTIONS and HTLV-II INFECTIONS MeSH Headings. HIV INFECTIONS may be EXPLODED to gather together articles on all stages of HIV infection.

Figure 1 shows the present RETROVIRUS INFECTIONS tree from the 1990 MeSH. For comparison, Figure 2 shows the same tree from the old 1989 MeSH.

<b>RETROVIRUS INFECTIONS</b>	<b>C2.782.815</b>			
<b>AVIAN LEUKOSIS</b>	<b>C2.782.815.96</b>	( 2 928 120 ( 4 619 938	( 4.887.337 C22.131.94	C4.619.831.
<b>AVIAN SARCOMA</b>	<b>C2.782.815.105</b>	C1.928.138 ( 4 619 938	C4.887.863	CA.619.897.
<b>HTLV INFECTIONS</b>	<b>C2.782.815.483</b>	( 20 673 483		
<b>HIV INFECTIONS</b>	<b>C2.782.815.483.440</b>	( 20 673 483		
<b>ACQUIRED IMMUNODEFICIENCY SYNDROME</b>	<b>C2.782.815.483.440.40</b>	( 2 800 801	C20 673.483	
<b>AIDS DEMENTIA COMPLEX</b>	<b>C2.782.815.483.440.70</b>	( 2 800 801. 1-3 789 488.	C 10.228.228.	C20 673.483.
<b>AIDS-RELATED COMPLEX</b>	<b>C2.782.815.483.440.80</b>	( 2 800 801	C20 673 483.	
<b>HIV SEROPOSITIVITY</b>	<b>C2.782.815.483.440.500</b>	( 20 673 483		
<b>HTLV-I INFECTIONS</b>	<b>C2.782.815.483.470</b>	C20 673 483.		
<b>LEUKEMIA-LYMPHOMA, T-CELL, ACUTE, HTLV-I-ASSOCIATED</b>	<b>C2.782.815.483.470.300</b>	( 4 857 337	C4.887.337	C20 673.483.
<b>PARAPARESIS, TROPICAL SPASTIC</b>	<b>C2.782.815.483.470.710</b>	C1.681.661.	C18.897.822.	C18.668.882
<b>HTLV-II INFECTIONS</b>	<b>C2.782.815.483.480</b>	C20 673 483		
<b>LEUKEMIA, T-CELL, HTLV-II-ASSOCIATED</b>	<b>C2.782.815.483.480.350</b>		C4.887.337.	CA.887.387.
<b>PNEUMONIA, PROGRESSIVE INTERSTITIAL, OF SHEEP</b>	<b>C2.782.815.790</b>			C28.673.483.
				C22.826.668

Figure 1 - 1990 Annotated MeSH

<b>RETROVIRUS INFECTIONS</b>	<b>C2.782.815</b>			
<b>AVIAN LEUKOSIS</b>	<b>C2.782.815.96</b>	C1.928.138 CA.619.898.	CA.887.337. C22.131.94	CA.619.831.
<b>AVIAN SARCOMA</b>	<b>C2.782.815.105</b>	C1.928.138 CA.619.898.	CA.887.863.	CA.619.897.
<b>HTLV INFECTIONS</b>	<b>C2.782.815.483</b>	C20 673 483		
<b>ACQUIRED IMMUNODEFICIENCY SYNDROME</b>	<b>C2.782.815.483.23</b>	C1.888.891.	C20 673 483.	
<b>AIDS-RELATED COMPLEX</b>	<b>C2.782.815.483.23.80</b>	C1.888.891.	C20 673 483.	
<b>HIV SEROPOSITIVITY</b>	<b>C2.782.815.483.23.852</b>	C1.888.891.	C20 673 483.	
<b>HTLV-I INFECTIONS</b>	<b>C2.782.815.483.470</b>	C20 673 483.		
<b>LEUKEMIA-LYMPHOMA, T-CELL, ACUTE, HTLV-I-ASSOCIATED</b>	<b>C2.782.815.483.470.300</b>		CA.887.337.	CA.887.337.
<b>PARAPARESIS, TROPICAL SPASTIC</b>	<b>C2.782.815.483.470.710</b>		C1.681.661.	C18.897.822.
<b>HTLV-II INFECTIONS</b>	<b>C2.782.815.483.480</b>		C20 673 483.	C18.668.882
<b>LEUKEMIA, T-CELL, HTLV-II-ASSOCIATED</b>	<b>C2.782.815.483.480.350</b>		CA.887.337.	CA.887.337.
<b>PNEUMONIA, PROGRESSIVE INTERSTITIAL, OF SHEEP</b>	<b>C2.782.815.790</b>			C28.673.483.
				C22.826.668

Figure 2 - 1989 Annotated MeSH

Because HIV INFECTIONS is a new term for 1990 it may be used to retrieve articles indexed for 1990 forward. Previous indexing information for HIV INFECTIONS is given on page I-82 of the Annotated MeSH. This page indicates that the headings ACQUIRED IMMUNODEFICIENCY SYNDROME as well as HIV SEROPOSITIVITY were used prior to 1990 to express the concept of HIV INFECTIONS. The date ranges that they were used is given. To retrieve articles on HIV INFECTIONS prior to 1990, either one or both of these MeSH Headings can be used depending upon the scope of your search topic. If both terms are used, we suggest using an "or" statement to combine the two terms, because this will retrieve references containing either term alone. If you use the "and" to combine the two terms, a reference would have to have both terms in order to be retrieved. This previous indexing information for HIV INFECTIONS can also be found in the online MeSH VOCABULARY File in the Previous Indexing (PI) field.

As mentioned, AIDS DEMENTIA COMPLEX is a new MeSH heading for 1990. It may be used to retrieve articles on this topic indexed for 1990 forward. To search for articles on AIDS DEMENTIA COMPLEX from 1983-1989, combine the MeSH Heading ACQUIRED IMMUNODEFICIENCY SYNDROME with the MeSH Heading DEMENTIA using the "and". Figure 3 is a sample search from the MEDLINE database. In this example, we printed the Previous Indexing (PI) field of the AIDS DEMENTIA COMPLEX record from the online MESH VOCABULARY File. The Previous Indexing (PI) field indicates that these two headings were used for this concept from 1983-1989. This previous indexing information can also be found on page I-67 of the 1990 Annotated MeSH, 1990. As the attached search shows, you must supply the Boolean logic needed as none is explicit for the concepts listed in the Previous Indexing (PI) field. In this case, it makes sense to choose the Boolean operator AND rather than OR.

AIDS-related coverage for 1990 now includes terms for several promising pharmacologic agents, including Ganciclovir, several Dideoxynucleosides, Peptide T, and Trichosanthin (Compound Q), as well as AIDS Dementia Complex and HIV Seroprevalence. Below are the 1990 groupings of AIDS-related terms.

**HIV Infection terms (1990 array including old and new terms)**

HIV INFECTIONS [new]  
 ACQUIRED IMMUNODEFICIENCY SYNDROME  
 AIDS DEMENTIA COMPLEX [new]  
 AIDS-RELATED COMPLEX  
 HIV SEROPOSITIVITY

**Diagnosis, Pathogenesis, and other AIDS associations (new terms)**

HERPESVIRUS-6, HUMAN  
 HIV SEROPREVALENCE  
 RADIOIMMUNOPRECIPITATION ASSAY

**Molecular Biology of Aids (new terms)**

ANTIGENS, CD4  
 HIV ENVELOPE PROTEIN GP41  
 HIV ENVELOPE PROTEIN GP120  
 NEUROLEUKIN (neuronal growth factor with partial homology to HIV env protein gp 120)  
 RECEPTORS, HIV

**Therapy**

DIDEOXYADENOSINE  
 DIDEOXYCYTIDINE  
 DIDEOXYINOSINE  
 GANCICLOVIR  
 TRICHOSANTHIN (Compound Q)  
 PEPTIDE T (shares sequence homology with env protein gp120, core sequence of which is required for attachment to CD4 receptor)

See also the terms listed under GENE PRODUCTS, ENV and the article on New Biotechnology/Molecular Biology, page 87.

```
SS 1 /C?  
USER:  
file mesh  
PROG:  
YOU ARE NOW CONNECTED TO THE MESH VOCABULARY (1990) FILE.
```

```
SS 1 /C?  
USER:  
aids dementia complex  
PROG:  
SS (1) PSTG (1)
```

```
SS 2 /C?  
USER:  
prt pi  
PROG:
```

```
1  
PI - Acquired Immunodeficiency Syndrome (83-89)  
PI - Dementia (83-89)
```

```
SS 2 /C?  
USER:  
file med  
PROG:  
YOU ARE NOW CONNECTED TO THE MEDLINE (1988 - 90) FILE.
```

```
SS 1 /C?  
USER:  
aids dementia complex  
PROG:  
SS (1) PSTG (27)
```

```
SS 2 /C?  
USER:  
acquired immunodeficiency syndrome and dementia  
PROG:  
SS (2) PSTG (96)
```

```
SS 3 /C?  
USER:  
1 or 2  
PROG:  
SS (3) PSTG (122)
```

Figure 3A

```

SS 4 /C?
USER:
prt tl. so, mh, em
PROG:

1
TI - [Psychiatric problems in the care of AIDS patients by the
      internist]
MH - Acquired Immunodeficiency Syndrome/*PSYCHOLOGY
MH - Adjustment Disorders/*DRUG THERAPY
MH - AIDS Dementia Complex/*DRUG THERAPY
MH - Delirium/DRUG THERAPY
MH - Depression/*THERAPY
MH - Human
MH - Review
MH - Review, Tutorial
MH - Suicide/*STATISTICS & NUMER. DATA
EM - 9003
SO - Dtsch Med Wochenschr 1989 Dec 1;114(48):1889-93
.
.

30
TI - Positron emission tomography findings in dementia disorders:
      contributions to differential diagnosis and objectivizing of
      therapeutic effects.
MH - Acquired Immunodeficiency Syndrome/COMPLICATIONS
MH - Alzheimer's Disease/METABOLISM
MH - Brain/METABOLISM
MH - Cerebrovascular Disorders/COMPLICATIONS
MH - Dementia/CHEMICALLY INDUCED/ETIOLOGY/METABOLISM/*RADIONUCLIDE
      IMAGING/THERAPY
MH - Diagnosis, Differential
MH - Encephalitis/COMPLICATIONS
MH - Glucose/METABOLISM
MH - Human
MH - Review
MH - Review, Tutorial
MH - *Tomography, Emission-Computed
EM - 8912
SO - Keio J Med 1989 Jun;38(2):111-35

31
TI - Role of HIV in human nervous system dysfunction.
MH - Acquired Immunodeficiency Syndrome/*COMPLICATIONS
MH - Antigens, Differentiation, T-Lymphocyte/PHYSIOLOGY
MH - Dementia/ETIOLOGY
MH - Human
MH - Nervous System Diseases/*ETIOLOGY
MH - Review
MH - Review Literature
MH - Support, Non-U.S. Gov't
MH - Support, U.S. Gov't, P.H.S.
EM - 8912
SO - AIDS Res Hum Retroviruses 1989 Aug;5(4):369-74

```

Figure 3B



## New Geographic Terms

The United States branch in Category Z of the 1900 Tree Structures has been reorganized to make gathering together parts of the United States considerably easier. There are now two listings of states organized differently under two new headings: United States by Individual State (Non MeSH) and United States by Regions (Non MeSH). Please see pages 706-708 of the 1990 Tree Structures for the big picture.

**United States by Individual State (Non MeSH)** will be useful for searchers trying to retrieve studies done at the state-level when the particular state is not important. For example:

Exp United States by Individual State (Non MeSH)

(Note: Since it's a Non MeSH term you can only search it with EXPLODE.)

Each state is indented under this heading and cities are indented under the state. As always, the state or city names can be searched individually or combined with other terms.

**United States by Region (Non MeSH)** will appear with eight region names indented under it. These regions are:

- Appalachian Region
- Great Lakes Region
- Mid-Atlantic Region
- Midwestern United States
- New England
- Northwestern United States
- Southeastern United States
- Southwestern United States

Under each region you will see a loose arrangement of state names. The assignment of states in this tree is by popular use, rather than "official rule" so you will see some states listed in more than one region. Indexers will use these headings to reflect the emphasis the author has placed on a particular region. You may search this new heading:

Exp United States by Region (Non MeSH)

This will retrieve any reference where the author has stressed one or more of these eight regions but it will also retrieve references indexed with an individual state name (these references may have no particular "regional" emphasis). To retrieve references with only regional emphasis, a more precise strategy would be to search on only the specific regional terms. More likely you will want to search on a particular region and include the specific states in that region using the EXPLODE command, e.g.,

Exp Southwestern United States

City names are not included in this region tree. If it is important to your search, you must OR them with the EXPLODE of the region name, e.g.:

Exp Southwestern United States or Los Angeles

There are only 7 city names in MeSH: Baltimore, Boston, Chicago, Los Angeles, New York City Philadelphia and San Francisco.

### Epidemiology (the subheading)

The subheading, epidemiology, has been expanded this year and can now be used with Z tree headings (Geographic Names). This means you can now search, for example:

- Minnesota/ep
- New England/ep
- Exp New England/ep

A geographic heading/subheading combination will always occur on a record with another combination -- either a "disease term"/EPIDEMIOLOGY or a "non-disease term"/STATISTICS & NUMER. DATA. See Figure 1.

For a more complete explanation of expanded subheadings see the article "Expanded Subheadings" on page 68 of this issue.

S 1 /C?  
 USER:  
 new england/ep                   ●    The coordinate index terms are bolded.  
 PROG:  
 SS (1) PSTG (2)

SS 2 /C?  
 USER:  
 prt ti, mh, so, em  
 PROG:

- 1
- TI - Risk of carotid endarterectomy in the elderly.
  - MH - Age Factors
  - MH - Aged
  - MH - Aged, 80 and over
  - MH - Carotid Arteries/\*SURGERY
  - MH - **Cerebrovascular Disorders/EPIDEMIOLOGY**
  - MH - Endarterectomy/\*MORTALITY
  - MH - Human
  - MH - **New England/EPIDEMIOLOGY**
  - MH - Odds Ratio
  - MH - Outcome and Process Assessment (Health Care)
  - MH - Postoperative Complications
  - MH - Regression Analysis
  - MH - Risk Factors
  - MH - Support, U.S. Gov't, P.H.S.
  - MH - Surgery Department, Hospital
  - EM - 9002
  - SO - Am J Public Health 1989 Dec;79(12):1617-20
- 2
- TI - Employment status and the frequency and causes of burn injuries in New England.
  - MH - **Accidents, Occupational/\*STATISTICS & NUMER. DATA**
  - MH - Adult
  - MH - Aged
  - MH - **Burns/\*EPIDEMIOLOGY/ETIOLOGY**
  - MH - Female
  - MH - Human
  - MH - Male
  - MH - Middle Age
  - MH - Negroid Race
  - MH - **New England/EPIDEMIOLOGY**
  - MH - Risk Factors
  - MH - Sex Factors
  - MH - Support, U.S. Gov't, P.H.S.
  - MH - Unemployment
  - EM - 9001
  - SO - J Occup Med 1989 Sep;31(9):751-7

Figure 1

## Epidemiology Headings

The number of terms available in the area of epidemiology has been greatly amplified by the addition of over 40 terms for 1990. Basically, three major

divisions have been created covering epidemiologic factors, measurements, and methods, and a number of specific study type and statistical headings have been added.

Schematically, MeSH views the body of old epidemiological terms and the new with this skeleton:

Public health	pre-1990
Epidemiologic factors	a 1990 heading
Epidemiologic measurements	a 1990 Non-MeSH heading
Epidemiologic methods	pre-1990
Data collection	pre-1990
Statistics	pre-1990
Study characteristics	a 1990 Non-MeSH heading
Study design	a pre-1990 Non-MeSH heading
Public health practice	a 1990 Non-MeSH heading

The 1990 epidemiologic terms are listed below without reference to the characterization shown in the scheme above.

Abbreviated Injury Scale  
 Analytic Studies (Epidemiology) (Non MeSH)  
 Bias (Epidemiology)  
 Binomial Distribution  
 Body Mass Index  
 Case-Control Studies  
 Causality  
 Chi-Square Distribution  
 Cluster Analysis  
 Cohort Effect  
 Comorbidity  
 Confidence Intervals  
 Confounding Factors (Epidemiology)  
 Discriminant Analysis  
 Effect Modifiers (Epidemiology)  
 Epidemiologic Measurements (Non MeSH)  
 Glasgow Coma Scale  
 Healthy Worker Effect  
 HIV Seroprevalence  
 Incidence  
 Injury Severity Score  
 Intervention Studies  
 Least-Squares Analysis  
 Life Tables  
 Likelihood Functions  
 Linear Models  
 Logistic Models

Multivariate Analysis  
 Neonatal Screening  
 Normal Distribution  
 Nutrition Assessment  
 Observer Variation  
 Odds Ratio  
 Placebo Effect  
 Poisson Distribution  
 Precipitating Factors  
 Prevalence  
 Proportional Hazards Models  
 Randomized Controlled Trials  
 Selection Bias  
 Seroepidemiologic Methods  
 Single-Blind Method  
 Statistical Distributions (Non MeSH)  
 Study Characteristics (Non MeSH)  
 Survival Analysis  
 Survival Rate  
 Trauma Severity Indices

With the broadening of the MeSH coverage of epidemiology, the subheading /epidemiology has been extended for use with the geographical headings of Category Z. For 1990 an article such as "the incidence of AIDS in Somalia" will now be indexed under AIDS/epidemiology + INCIDENCE + SOMALIA /epidemiology.

## Eye Diseases

Nearly 40 new headings have been added in the domain of ophthalmologic diseases. They are:

Acanthamoeba Keratitis  
Aniridia  
Anisocoria  
Anisometropia  
Choroid Diseases  
Choroideremia  
Corneal Edema  
Enophthalmos  
Eye Diseases, Hereditary  
Eye Infections  
Eye Infections, Bacterial  
Eye Infections, Fungal  
Eye Infections, Parasitic  
Eye Infections, Viral  
Eye Injuries, Penetrating  
Glaucoma, Angle-Closure  
Gyrate Atrophy  
Iridocyclitis  
Iris Neoplasms  
Miosis  
Mydriasis  
Ocular Hypotension  
Ocular Motility Disorders  
Oculomotor Nerve Paralysis  
Onchocerciasis, Ocular  
Optic Disk Drusen  
Panuveitis  
Pars Planitis  
Retinal Drusen  
Retinal Dysplasia  
Retinal Necrosis Syndrome, Acute  
Retinal Neovascularization  
Tonic Pupil  
Uveitis, Intermediate  
Uveitis, Posterior  
Uveitis, Suppurative

## Biotechnology and Molecular Biology

Continuing the expansion of biotechnology-related terminology begun last year, several groups of terms associated with gene expression, gene expression regulation, gene products, the human genome, and a variety of structural genes have been added.

The following new headings related to gene sequence, structure, expression, and function have been added for 1990. Those with an asterisk are also relevant to the molecular biology of AIDS.

### Protein Synthesis

EIF-1 (initiation factors eukaryotic transcription)  
EIF-2

### GENE EXPRESSION

GENE EXPRESSION REGULATION (already existing term)

GENE EXPRESSION REGULATION, BACTERIAL

GENE EXPRESSION REGULATION, ENZYMOLOGIC

GENE EXPRESSION REGULATION, FUNGAL

GENE EXPRESSION REGULATION, NEOPLASTIC

GENE EXPRESSION REGULATION, LEUKEMIC

GENE EXPRESSION REGULATION, VIRAL

GENES, ENV

GENES, GAG

GENES, NEF

GENES, POL

GENES, REV

GENES, TAT

GENE PRODUCTS, ENV

GENE PRODUCTS, GAG

GENE PRODUCTS, NEF\*

GENE PRODUCTS, POL

GENE PRODUCTS, REV\*

GENE PRODUCTS, TAT\*

### ONCOGENE PRODUCTS

TRANS-ACTIVATION (GENETICS)

VIRAL REGULATORY PROTEINS

TRANS-ACTIVATORS

### Cellular, Subcellular and Molecular Structure and Function

GENES, STRUCTURAL, BACTERIAL

GENES, STRUCTURAL, FUNGAL

GENES, STRUCTURAL, NEOPLASM

GENES, STRUCTURAL, PLANT

GENES, STRUCTURAL, VIRAL

### VIRAL STRUCTURAL PROTEINS

HN PROTEIN (viral protein possessing both hemagglutinin and neuraminidase activity)

### ONCOGENE PROTEINS, FUSION

BCR-ABL FUSION PROTEINS (translation product of fusion mRNAs)

GAG-ONC FUSION PROTEINS (translation product of fusion mRNAs)

GAG-POL FUSION PROTEINS (polyprotein products of a fused portion of retroviral mRNA)

### RETROVIRIDAE PROTEINS

RETROVIRIDAE PROTEINS, ONCOGENIC

ONCOGENE PROTEIN P21(RAS)

ONCOGENE PROTEIN PP60(SRC)

### RECEPTORS, CYTOADHESIN

RECEPTORS, LEUKOCYTE-ADHESION

RECEPTORS, VERY LATE ANTIGEN

GENE LIBRARY (cDNA library goes here) - for a species

GENOMIC LIBRARY - for an individual

GENOME HUMAN

HUMAN GENOME PROJECT

### LINKAGE DISEQUILIBRIUM

## MESH File Changes

### **BX (Backward Cross Reference) and TH (Thesaurus ID)**

The Thesaurus (TH) data element has always included the name of other thesauri in which the MeSH Heading (MH) or Backward Cross Reference (BX) entries occur. See Manual 6.8.2 for more information on the BX field. However, for 1990, the names of the thesauri for BX entries will also occur in the specific entry which contains a matching term. For example, in the GENBANK vocabulary, the term "Pol Polyprotein" is synonymous with the MeSH heading "Gene Products, Pol." Therefore, the GENBANK term is not only an entry term to the MeSH heading but "GENBANK" is entered as a subelement of the entry term:

MH - Gene Products, Pol  
 BX - Gene Product, Pol:0:NLM (1990)  
       :0000000:890404  
 BX - Pol Polyprotein:0:GENBANK (1989)  
       :0000000:890210

As in 1989, if no particular thesaurus match is found, the entry will be "NLM," indicating that the term originated at NLM. If there is a thesaurus identifier listed in a BX field, the same thesaurus identifier will also be found in the Thesaurus (TH) field, which is searchable.

In addition to the familiar ID's of POPLINE and BIOETHICS, the new thesaurus ID of IOM is used - for the Institute of Medicine.

## 1990 Tree Structures

In the MeSH Tree Structures, all headings are arranged hierarchically within each category. After each heading, the full tree number is shown for the location of the heading in the tree being examined. Additional tree numbers are listed following this number for the locations, if any, of the heading elsewhere in the trees.

In 1990, a new feature, called Tree Annotations, has been incorporated into the Tree Structures. The Tree Annotations introduce each MeSH hierarchical "tree" category and are designed as a supplement to the Annotated MeSH serving as a set of explanations for the contents of the individual trees. Each Tree Annotation also carries a list of subheadings (qualifiers) generally available for use with terms in that tree. However, these subheadings lists reflect general indexing policies for the

category; use only those subheadings available to a given term and always prefer a specific to a general descriptor in indexing and searching a concept. In using the Tree Annotations you should remember that the lists of available subheadings are merely suggestive.

As the Annotated MeSH gives pertinent information on an individual term, the new Tree Annotation pages in the Tree Structures give the general approach an indexer or searcher should take for an entire given tree and the special features within a tree of which an indexer or searcher should be aware.

The following example, reproduced from page 470 of the Tree Structures, 1990 shows the D25 - Biomedical and Dental Materials Tree Annotation.

### D25 - Biomedical and Dental Materials

1. These subheadings are available to Tree D25:

admin - AD	diag use - DU	pharmacokin - PK	stand - ST
adv eff - AE	hist - HI	pharmacol - PD	supply - SD
anal - AN	isol - IP	pois - PO	ther use - TU
chem syn - CS	metab - ME	rad eff - RE	tox - TO
class - CL			

2. Avoid general terms; prefer specifics.
3. Note both CARIOGENIC AGENTS (those causing dental caries) and CARIOSTATIC AGENTS (those inhibiting dental caries). In addition to CARIOGENIC AGENTS consider DENTAL CARIES/etiology and DENTAL CARIES/chemically induced. In addition to CARIOSTATIC AGENTS, consider DENTAL CARIES/therapy or DENTAL CARIES/drug therapy.
4. Note both RESINS (natural) and RESINS, SYNTHETIC.
5. In addition to the materials here, see MATERIALS (NON MESH) at J1.637.

The basic format of a Tree Annotation includes a list of subheadings available for use with that tree, a reminder to prefer a specific term over a general one for indexing and searching, and then noteworthy points covering the use of headings in the tree and relationships to other trees. Again, remember that subheadings for 1990 indexing are now controlled on a heading-by-heading basis (see article on page ) and the subheadings listed in the Tree Annotations should be considered only as a general guideline. In fact, all information in the Tree Annotations should be considered as suggestions that are not all-inclusive. Use them in conjunction with (not as a substitute for) the Annotated MeSH, Permuted MeSH, and the online MESH VOCABULARY File.

In 1990 there have been two major changes to the MeSH Tree Number Changes list in the Tree Structures, pages I-6 through I-45.

1. In the 1989 listing of Tree Number Changes there was a Supplement to Tree Number Changes listing the Replaced Heading and the Replaced-by Heading in a column to the right. In the 1990 Tree Number Changes list, replaced headings were incorporated in the single main listing and are shown with the note (Replaced for 1990 by: \_\_\_\_\_) under the old MeSH heading and the changed tree numbers.

2. In 1989, the complete 1988 and 1989 trees were shown for any term listed in the Tree Number Changes, whether or not each individual tree number was actually changed. In the 1990 Tree Number Changes, only the tree numbers which have actually been changed are listed; the 1989 and 1990 columns are not complete for all tree numbers for any given MeSH heading.



## **The NLM Technical Bulletin and Gratefully Yours**

The National Library of Medicine publishes the NLM Technical Bulletin as the primary method of communicating with users of the Library's computerized literature retrieval system. MEDLARS has grown from 25 users in 1971 to a user base of 32,000 users throughout the world. Searchers now have a wide diversity of backgrounds and varying levels of sophistication concerning online searching. The largest growing population of users are the health professionals and it is expected that this pattern of growth will continue. In 1987, Congress encouraged NLM to develop an outreach program aimed at alerting health professionals, particularly those in rural and underserved areas, to the computerized medical resources available to them. Congress even modified NLM's mandate by requiring the Library to publicize its products and services.

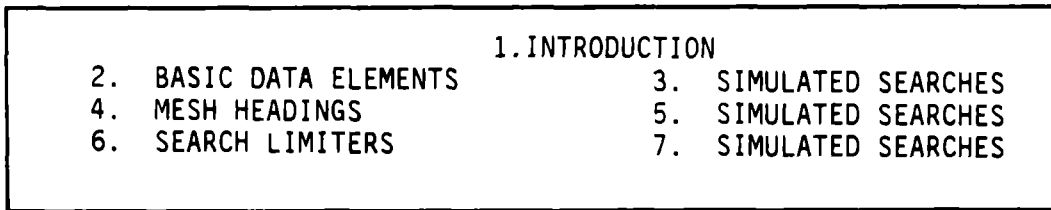
As part of this outreach effort, the Library has decided to add a general newsletter, Gratefully Yours, geared toward health professionals who do their own searching. It will be issued bimonthly and sent to all members of the MEDLARS online network. The NLM Technical Bulletin will be issued on alternating months with the new publication. The NLM Technical Bulletin will continue to be the major vehicle for communicating *command language information and introducing new databases and changes to existing databases*. While we believe that many of you will be interested in both publications, at some point in the future, users will be asked if in addition to receiving Gratefully Yours they also wish to continue receiving the NLM Technical Bulletin. We expect to be able to provide both publications at no charge. We look forward to hearing your comments.

## PC User Aids

The National Library of Medicine released both TOXLEARN and MEDTUTOR, microcomputer-based training packages for command-language searchers of the TOXLINE and MEDLINE databases, in the summer of 1989. These training packages are designed to teach librarians and information scientists how to search the TOXLINE and MEDLINE databases effectively. These software packages assume that the user is somewhat familiar with the ELHILL software.

They cover the content and use of the databases as well as effective search strategies; their menu-driven design allows novice users to learn the basics of searching while providing the skilled searcher with a way to reinforce previously-learned search techniques. They may be used in place of formal training, as a precursor to or a refresher following formal training, or for review of a particular concept.

Both TOXLEARN and MEDTUTOR are organized into seven chapters. The following diagram illustrates the structuring of the two programs.



The introduction is presented in Chapter one. Chapters two, four, and six provide interactive instruction of increasing levels of complexity (i.e., basic, advanced and specialized), on the content and use of the individual databases followed by a search chapter. Chapter two covers the basic data elements used when searching. The structure and use of MeSH is presented in Chapter four and selected search limiters are covered in Chapter six. Chapters three, five, and seven provide sample searches which simulate actual online sessions.

Both TOXLEARN and MEDTUTOR were developed using PILOTplus language and the NLM LEARN Programmer. They run on IBM-PC, PC-XT, PC-AT, PS/2, and fully compatible computers. They require 512 KB RAM memory, one disk drive, and DOS 2.0 or higher. They support most monochrome, color graphics, enhanced color graphics, and visual graphics displays. While no extra peripherals are necessary, a printer is desirable. NLM does not currently have plans to offer this software for Macintosh computers.

Both TOXLEARN and MEDTUTOR are in the process of being revised and updated to include 1990 MeSH and other changes to their respective databases. Look for release of these products in the summer of 1990. There will be announcements and a *Technical Bulletin* article to explain all new features of the updated programs.

Please note: GRATEFUL MED searchers should use the "How To" tutorial to learn more about GRATEFUL

MED and online MEDLARS searching. A new version of "How To" will be distributed with Version 5.0 of GRATEFUL MED. A version of "How To" for Macintosh computers is planned.

Copies of TOXLEARN and MEDTUTOR can be purchased from NTIS for \$24.95 each plus a \$3.00 shipping charge per order. The Product Number for TOXLEARN is PB89-155766; the product number for MEDTUTOR is PB89-780027. Please include the appropriate number(s) with your order. The address and phone number for NTIS are:

National Technical Information Service  
 U.S. Department of Commerce  
 5285 Port Royal Road  
 Springfield, VA 22161  
 Phone: (703) 487-4650

Please direct any questions or comments regarding TOXLEARN to:

Miriam Perkins  
 Specialized Information Services  
 National Library of Medicine  
 Bethesda, MD 20894  
 Phone: (301) 496-1131

Please direct any questions or comments regarding MEDTUTOR to:

MEDLARS Management Section  
 National Library of Medicine  
 Bethesda, MD 20894  
 Phone: (800) 638-8480

## **\*\*MEDLEARN\*\***

### **DISCONTINUED**

The National Library of Medicine (NLM) will discontinue **\*\*MEDLEARN\*\*** this summer. The decision to discontinue this computer-assisted instruction program was made for several reasons:

1) A great number of MEDLARS users are searching via GRATEFUL MED which has its own computer-based training package called "How To";

2) The PC-computer-based training package MEDTUTOR is now available (see MEDTUTOR article, page );

3) The Basics of Searching MEDLINE self-instructional training publication was recently updated and is available; and

4) Updating **\*\*MEDLEARN\*\*** to reflect MeSH Vocabulary changes, system enhancements, current telecommunication networks, as well as modifying **\*\*MEDLEARN\*\*** to a screen format for use with microcomputers represented too great an investment for an outdated mainframe technology.

## National Library of Medicine Reference Bibliography Series

Current Bibliographies in Medicine (CBM) for 1990 will cover almost 20 different subject areas of biomedicine and are intended to fulfill a current awareness function. Many of the bibliographies will be produced to support National Institutes of Health Consensus Development Conferences that will be held in 1990. Citations are usually derived from searching a variety of online databases. NLM databases utilized include MEDLINE, AVLINE, BIOETHICSLINE, CANCERLIT, CATLINE, HEALTH, POPLINE, and TOXLINE. The only criterion for the inclusion of a particular published work is its relevance to the topic being presented; the format, ownership, or location of the material is not considered.

To order the entire CBM series for calendar year 1990, send \$52.00 (\$65.00 foreign) citing GPO List ID: CBM90, (see the order form on page 95) to the Superintendent of Documents, U.S. Government

Printing Office, Washington, D.C. 20402. Orders for individual bibliographies in the series (\$2.50, \$3.00 foreign) should be sent to the Superintendent of Documents citing the title and the GPO Stock Number printed on the title page. The series titles are announced in the NLM News as well as in the monthly Index Medicus.

The AIDS Bibliography contains citations to all preclinical, clinical, epidemiologic, diagnostic, and prevention areas added to NLM's AIDSLINE, CATLINE, and AVLINE databases. Journal article references are presented in two sections, subject and author, in a format similar to that used in the Index Medicus. AIDS Bibliography is sold by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. To order the entire AIDS Bibliography series for calendar year 1990, send \$48.00 (\$60.00 foreign) citing GPO List ID: AIDS90 (see the order form on page ). Individual bibliographies in the series (\$4.00, \$5.00 foreign) may also be obtained from the Superintendent of Documents.



## National Library of Medicine Data on Optical Disk

Beginning in 1988, some National Library of Medicine (NLM) databases are distributed on optical disk. The following organizations have created CD-ROM (Compact Disk - Read Only Memory) products using data leased from NLM. If you are interested in obtaining specific information about the products that they have placed in the marketplace, we encourage you to contact the vendors themselves.

Aries Systems Corporation (currently produce the only  
Macintosh product)  
1 Dundee Park  
Andover, MA 01810  
(508) 475-7200

Cambridge Scientific Abstracts  
7200 Wisconsin Ave., 6th Floor  
Bethesda, MD 20814  
(301) 961-6700

CD-PLUS, Inc.  
951 Amsterdam Ave., Suite 2C  
New York, NY 10025  
(212) 932-1481

DIALOG Information Services  
3460 Hillview Avenue  
Palo Alto, CA 94304  
(415) 858-4058

Health Care Information, Inc.  
(formerly Digital Diagnostics)  
2334 American River Drive, Suite 307  
Sacramento, CA 95825  
(916) 921-6629

EBSCO Electronic Information  
P.O. Box 325 447  
Old Boston Road, Suite 10  
Topsfield, MA 01983  
800-221-1826

Knowledge Access International  
2685 Marine Way  
Suite 1305  
Mountain View, CA 94043  
(415) 969-0606

Medical Publishing Group  
Massachusetts Medical Society  
1440 Main Street  
Waltham, MA 02254-0803  
(617) 893-3800

SilverPlatter Information  
One Newton Executive Park  
New Lower Falls, MA 02162-1449  
800-343-0064  
(617) 969-2332  
FAX (617) 969-5554

## Fact Sheets

The following information sheets on National Library of Medicine Division, Programs and Resources are available upon request from:

Office of Inquiries and Publications Management  
 National Library of Medicine  
 8600 Rockville Pike  
 Bethesda, MD 20894

Access to Audiovisual Materials	Feb 89
Acid-Free Paper for Biomedical Literature	Dec 89
AIDS Informations Services	Oct 89
AIDSLINE	Oct 88
ANSWER	Sep 89
Assistance for Research Investigators	Oct 89
Audio Visual Sales	Jan 85
Bibliographic Services Division	Jul 89
BIOETHICSLINE	Sep 85
CCRIS	Feb 88
CHEMLEARN	Jul 89
CHEMLINE	Jul 89
Collection Development Manual	Apr 87
Computer Sciences Branch	Feb 89
DBIR	Summer 89
DIRLINE	Mar 89
DOCLINE	May 89
Electronic Document Storage & Retrieval Program	Nov 88
EMIC	May 89
Errata, Retraction & Comment Policy	Jun 89

ETIC	Mar 89
E. T. NET	Sep 89
Expert Systems Program	Nov 88
GRATEFUL MED	Sep 89
Grants Program	May 89
HISTLINE	May 89
Historical Prints & Photographs Videodisc Project	Apr 85
History of Medicine Division	Jun 89
HSDB	Sep 89
Interactive Videodisc Exhibit Artificial Intelligence in Medicine	Nov 88
Interlibrary Loan Policy	May 89
Learning Center for Interactive Technology	Nov 89
Learning Resource Center	May 89
Lister Hill National Center for Biomedical Communications	Oct 88
Medical Subject Headings	May 89
MedIndEx Project	Nov 88
MEDLARS III	Jan 85
MEDLINE Use by Physicians	Mar 89
Micro-CSIN Workstation	Jan 88
National Center for Biotechnology Information	Mar 89
National Library of Medicine	Jan 89
Natural Language Systems Project	Nov 88
NLM Chemical and Toxicological Files Cost Sheet	Jun 89
NLM International Foreign Centers	Aug 89



NLM Online Databases	Jul 88
NLM Online Services Program Policy Statement	May 88
NLM Policy on Database Pricing	Dec 89
NLM Publication Grant Program	Oct 88
NLM Research Training Program in Medical Informatics: Training Directors	Oct 89
NLM Resources in Veterinary Medicine	May 89
Online Indexing System	Jun 89
Preservation Program	Jun 89
Public Services Division	Oct 89
Regional Medical Libraries	May 89
Regional Medical Library Network Membership Program	Apr 89
Resource Grants	No date
Resources for the History of Nursing in History of Medicine Division, NLM	Jul 88
RTECS	Feb 88
SERHOLD	Jun 89
Staff Directory, NLM	Aug 89
Technical Services Division	May 89
The Special Foreign Currency Program	Oct 87
TIME Project (Technical Innovations in Medical Education)	Nov 88
TIP File Demo Disk	No date
Toxicology Information Program	Oct 89
TOXLEARN	No date
TOXLINE	Mar 89
TOXNET	Aug 89
TRI	Jul 89
Unified Medical Language System	Nov 89

# Serials Update

## INDEXED TITLES UPDATE, FEBRUARY 1990

The following titles cited in MEDLINE, HEALTH, and POPLINE have recently been selected for indexing, undergone a title change, or ceased publication. This list is not cumulative; the information provided is only for titles whose status has changed since the

last UPDATE. More detailed information may be found in SERLINE. For further information, please contact MMS or Ms. Esther Baldinger, (301) 496-1276, Technical Services Division, NLM.

### TITLES SELECTED FOR INDEXING, JANUARY 1989

- |  |   |
|--|---|
| <p><b>IDL DENTAL JOURNAL OF MALAYSIA</b><br/>DENT J MALAYS<br/>1N1, JUNE 1947--<br/>MALAYSIAN DENTAL ASSOCIATION<br/>PETALING JAYA MALAYSIA<br/>CALLED ALSO NEW SERIES. SUPERSEDES IN PART<br/>DENTAL JOURNAL OF MALAYSIA AND SINGAPORE.<br/>INDEXING BEGAN WITH V0N1,1985.<br/>W1 DE255N 0126-8023<br/>D04240000 JC: AKY</p>  | <p><b>HLI NATIONAL MEDICAL CARE UTILIZATION AND EXPENDITURE SURVEY. SERIES C, ANALYTICAL REPORT</b><br/>NATL MED CARE UTIL EXPEND SURV C<br/>N1,1985--<br/>U.S. PUBLIC HEALTH SERVICE, NATIONAL CENTER FOR HEALTH STATISTICS<br/>HYATTSVILLE MD UNITED STATES<br/>INDEXING BEGAN WITH N1,1985.<br/>W2 A N224N 0895-2671<br/>SR0059448 JC: AK5</p>           |
| <p><b>IM DEVELOPMENTAL BIOLOGY</b><br/>DEV BIOL (N Y 1985)<br/>1,1985--<br/>PLENUM<br/>NEW YORK UNITED STATES<br/>INDEXING BEGAN WITH V1, 1985.<br/>W1 DE997NBM<br/>SR0057953 JC: AH9</p>  | <p><b>HLI RAND JOURNAL OF ECONOMICS</b><br/>RAND J ECON<br/>15N1,SPRING 1984--<br/>RAND CORPORATION<br/>SANTA MONICA CA UNITED STATES<br/>CONTINUES: BELL JOURNAL OF ECONOMICS, WHICH IS NOT IN THE NLM COLLECTION. THIS TITLE IS NOT IN THE NLM COLLECTION.<br/>INDEXING BEGAN WITH 20N1,SPRING 1989.<br/>AHA 0741-6261<br/>SR0067334 JC: AK1</p>          |
| <p><b>IM ENTECHNOLOGY</b><br/>ENTECHNOLOGY<br/>19??--<br/>HOSPITAL PUBLICATIONS<br/>SECAUCUS NJ UNITED STATES<br/>CURRENT TECHNOLOGY IN HEAD AND NECK<br/>MEDICINE AND SURGERY. ISSUES FOR MAY 1985<br/>AND SEPTEMBER 1985 CALLED SPECIAL ISSUES OF<br/>EAR, NOSE, AND THROAT JOURNAL; ISSUES FOR<br/>SEPTEMBER 1986- CALLED SUPPLEMENTS TO:<br/>EAR, NOSE AND THROAT JOURNAL.<br/>INDEXING BEGAN WITH SEP,1988 ISSUE.<br/>W1 EN923D 0145-5613<br/>SR0054868 JC: AKP<br/>HOSPITAL PUBLICATIONS,300 HARMON MEADOW<br/>BLVD.,SECAUCUS NJ 07094</p> | <p><b>IDL REVISTA DA FACULDADE DE ODONTOLOGIA DE LINS</b><br/>REV FACULDADE ODONTOL LINS<br/>1N1,1988--<br/>FACULDADE DE ODONTOLOGIA DE LINS<br/>SAO PAULO BRAZIL<br/>INDEXING BEGAN WITH VIN1,1988.<br/>ON ORDER<br/>SR0067403 JC: AK6<br/>FACULDADE DE ODONTOLOGIA DE LINS,RUA<br/>TENENTE FLORENCIO PUPO NETO 300,16.400 -<br/>LINS,SAO PAULO BRASIL</p> |
| <p><b>HLI HEALTH SYSTEMS MANAGEMENT</b><br/>HEALTH SYST MANAGE<br/>1,1974--<br/>SPECTRUM<br/>NEW YORK UNITED STATES<br/>FIRST THREE VOLUMES PUBLISHED UNNUMBERED<br/>AND NUMBERED RETROSPECTIVELY.<br/>INDEXING BEGAN WITH V13,1980.<br/>W1 HE588F 0361-0195<br/>H08760000 JC: AML</p>   | <p><b>IDL TANDLAEGERNES NYE TIDSSKRIFT</b><br/>TANDLAEGERNES TIDSSKR<br/>N1,JAN 1989--<br/>TANDLAEGERNES NYE TIDSSKRIFT<br/>COPENHAGEN DENMARK<br/>INDEXING BEGAN WITH N1,JAN 1989.<br/>ON ORDER 0901-9898<br/>SR0067465 JC: AM4</p>  |
| <p><b>HLI NATIONAL MEDICAL CARE UTILIZATION AND EXPENDITURE SURVEY. SERIES B, DESCRIPTIVE REPORT</b><br/>NATL MED CARE UTIL EXPEND SURV B<br/>N1,198?--<br/>U.S. PUBLIC HEALTH SERVICE, NATIONAL CENTER FOR HEALTH STATISTICS<br/>HYATTSVILLE MD UNITED STATES<br/>INDEXING BEGAN WITH N1,1980.<br/>W2 A N2237N<br/>SR0059447 JC: AMP</p>  |   |

TITLE CHANGES, JANUARY 1989

<p>IM BIOLOGICALS BIOLOGICALS 18,1990-- ACADEMIC PRESS LONDON ENGLAND CONTINUES: JOURNAL OF BIOLOGICAL STANDARDIZATION. ON ORDER SR0066855 JC: AMW</p>	<p>INI FNIB INFO FNIB INFO N1,JAN-FEB 1989?-- FEDERATION NATIONALE NEUTRE DES INFIRMIER(E)S DE BELGIQUE BRUXELLES BELGIUM CONTINUES: FLASH-INFORMATIONS. ON ORDER SR0067218 JC: AKR</p>
<p>HLI FAMILIES IN SOCIETY FAM SOC 71,1990-- FAMILY SERVICE ASSOCIATION OF AMERICA NEW YORK UNITED STATES CONTINUES: SOCIAL CASEWORK. ON ORDER 1044-3894 SR0066856 JC: AKM</p>	<p>IM JOURNAL OF THE AIR AND WASTE MANAGEMENT ASSOCIATION J AIR WASTE MANAGE ASSOC 40,1990-- AIR AND WASTE MANAGEMENT ASSOCIATION PITTSBURGH PA UNITED STATES CONTINUES: JAPCA. IN PROCESS 1047-3289 SR0067429 JC: AMH</p>

TITLES NO LONGER INDEXED AS OF JANUARY 1989

<p>HLI ASSOCIATION MANAGEMENT ASSOC MANAGE 1,1949-- AMERICAN SOCIETY OF ASSOCIATION EXECUTIVES WASHINGTON UNITED STATES THIS TITLE IS NOT IN THE NLM COLLECTION. INDEXING BEGAN WITH V29N12, DEC 1977 AND CEASED WITH V41N12, DEC 1989. AHA 0004-5578 A70275000 JC: 89R</p>	<p>HLI COMPENSATION AND BENEFITS REVIEW COMPENS BENEFITS REV 17N3,JUL/AUG 1985-- AMERICAN MANAGEMENT ASSOCIATION NEW YORK UNITED STATES CONTINUES: COMPENSATION REVIEW. THIS TITLE IS NOT IN THE NLM COLLECTION. INDEXING CEASED WITH V21N6,NOV-DEC 1989. AHA SR0055325 JC: COC</p>
<p>HLI CANADIAN JOURNAL OF HOSPITAL PHARMACY CAN J HOSP PHARM 22,1969-- CANADIAN SOCIETY OF HOSPITAL PHARMACISTS WESTON CANADA CONTINUES HOSPITAL PHARMACIST. VOLS. 36-37 (1983-1984) COMPLETE IN FOUR ISSUES. INDEXING CEASED WITH V42N6,DEC 1989. W1 CA59 0008-4123 C04140000 JC: D2K</p>	<p>IDL FLORIDA DENTAL JOURNAL FLA DENT J 39,1968-60,1989 FLORIDA DENTAL ASSOCIATION TAMPA FL UNITED STATES CONTINUES JOURNAL OF THE FLORIDA STATE DENTAL SOCIETY. W1 FL79C 0015-3990 F06740000 JC: 2X6</p>
<p>HLI CANADIAN PHARMACEUTICAL JOURNAL CAN PHARM J 1,1868-- CANADIAN PHARMACEUTICAL ASSOCIATION OTTAWA CANADA INDEXING BEGAN WITH V113N4, APR 1980 AND CEASED WITH V122N12,DEC 1989. W1 CA636 0828-6914 C04720000 JC: CLP</p>	<p>HLI HUMAN ORGANIZATION HUM ORGAN 8,1949-- SOCIETY FOR APPLIED ANTHROPOLOGY WASHINGTON UNITED STATES CONTINUES APPLIED ANTHROPOLOGY. INDEXING BEGAN WITH V34N1,SPRING 1975 AND CEASED WITH V48N4,WINTER 1989. W1 HU456 0018-7259 H22340000 JC: GFP</p>
<p>IM CARLSBERG RESEARCH COMMUNICATIONS CARLSBERG RES COMMUN 41,1976-54,1989 SPRINGER VERLAG COPENHAGEN DENMARK CONTINUES COMPTEES RENDUS DES TRAVAUX DU LABORATOIRE CARLSBERG. INDEXING BEGAN WITH V53N1,1988. W1 CA82 0105-1938 C08060000 JC: ADT</p>	<p>IM JOURNAL OF THE OSLO CITY HOSPITALS J OSLO CITY HOSP 1,1951-39,1989 MEDICAL RESEARCH FOUNDATION OF CHRISTIAN PLESNER OSLO NORWAY INDEXING FOR ONLINE FILES BEGAN WITH V15N9,SEP 1965. W1 JO944N 0030-6207 J33500000 JC: JJB</p>

<p>HLI LABOR LAW JOURNAL  LABOR LAW J  1,1949--  COMMERCE CLEARING HOUSE  CHICAGO UNITED STATES  THIS TITLE IS NOT IN THE NLM COLLECTION  INDEXING BEGAN WITH V29N1, JAN 1978 AND  CEASED WITH V40N12, DEC 1989.  AHA 0023-6486  L00420000 JC: KYW</p>	<p>IM YEN KO HSUEH PAO (EYE SCIENCE)  YEN KO HSUEH PAO  1N1,1985-4N4,1988  CHUN-SHAN; KO TA HSUEH,CHUNG-SHAN YEN KO  CHUNG HSIN  KUANG-CHOU CHINA  JOURNAL FOR CLINICAL EXPERIMENTAL  OPHTHALMOLOGY AND PREVENTION OF BLINDNESS.  2Y, VOL.1 (1985); QUARTERLY, VOLS 2-4  (1986-1988).  INDEXING BEGAN WITH V1N1,1985.  W1 YE466H  SR0055837 JC: ESC</p>
<p>HLI MEDICAL ELECTRONICS  MED ELECTRON  8N5,OCT 1977--  MEASUREMENTS AND DATA  PITTSBURGH PA UNITED STATES  CONTINUES MED. MEDICAL ELECTRONICS AND  DATA. PART 1 ISSUED ALSO SEPARATELY AS  MEDICAL ELECTRONIC PRODUCTS, WHICH  CONTINUES MED NEWS. INCLUDES A SECTION WITH  ITS OWN VOLUME NUMBERING CALLED: THE HEART  WATCHER. JOURNAL OF THE MEDICAL ELECTRONICS  SOCIETY. ABSORBED: AMERICAN JOURNAL OF  ELECTROMEDICINE, OCT. 1988.  INDEXING CEASED WITH V20N6,DEC 1989.  W1 ME309LR 0149-9734  M13760000 JC: MB4</p>	

ACCESS PROCEDURES FOR MEDLARS ELHILL (MEDLINE) SYSTEM  
*(See footnotes next page)*

KEY: → = Your response  
 <CR> = Carriage Return

**COMPUSERVE** **INFONET** **TELENET** **TYMNET** **DIRECT DIAL**  
*Full Duplex 1* *Full Duplex 1* *Full Duplex 1* *Full Duplex 1* *Half Duplex Only*

Dial local number *Connect phone & terminal* Dial local number *Connect phone & terminal* Dial local number *Connect phone & terminal* Dial local number *Connect phone & terminal* *This option is for the Washington, D C area only*

→ <CR> → <CR> <CR> → <CR> <CR> 1 → a 2  
 480-3150 300/1200 bps  
 480-4360 2400 bps

# TELNET 202 19B TERMINAL= → d1 <CR> 2  
 (Type your correct terminal identifier, see footnote )  
 -2544-021- please log in: Connect phone & terminal

05DCF Host Name: PORT: 56 CENTER: → n1 <CR>  
 → NLM <CR> 2  
 (Type your correct terminal identifier, see footnote )  
 @  
 → c 301 20 <CR>  
 WELCOME TO NATIONAL LIBRARY OF MEDICINES COMPUTER SERVICES  
 NLM Main Menu  
 (menu of choices will follow)  
 Please select a service number ->  
 → 1 <CR>  
 + NLM: call connected

Connected to 02NLM COMMUNICATION ESTABLISHED 301 20 CONNECTED → p <CR>  
 PLEASE ENTER /LOGIN

→ /login <CR> → /login <CR> → /login <CR>  
 PLEASE ENTER /LOGIN

PLEASE ENTER USERID/ PASSWORD OR LOGON #####  
 PLEASE ENTER USERID/ PASSWORD OR LOGON #####  
 PLEASE ENTER USERID/ PASSWORD OR LOGON #####  
 PLEASE ENTER USERID/ PASSWORD OR LOGON #####

→ xyz01/sun <CR> (Type your Code & Password )  
 → xyz01/sun <CR> (Type your Code & Password )  
 → xyz01/sun <CR> (Type your Code & Password.)  
 → xyz01/sun <CR> (Type your Code & Password.)  
 → xyz01/sun <CR> (Type your Code & Password.)

## FOOTNOTES FOR ACCESSING MEDLARS ELHILL (MEDLINE) SYSTEM

### 1 Half Duplex Instructions

**COMPUERVE:** at the  
Host Name: prompt, type  
'NLM <CR>  
Proceed with the above  
instructions

**INFONET:** at the  
COMMUNICATION ESTABLISHED  
prompt, type Ctrl P At the \* prompt,  
type set 2:0 <CR> Proceed with the  
above instructions

**TELENET:** at the @  
prompt, type half <CR>  
Proceed with the above  
instructions

**TYMNET:** at the please log in  
prompt, type Ctrl H followed  
by nlmmenu <CR>. Proceed  
with the above instructions.

(a Ctrl key sequence means that you depress and hold down the Ctrl key, press the letter key and then release both keys)

### 2 Use the appropriate terminal identifier for your equipment.

**COMPUERVE:** Most computer users do not need to specify a terminal ID Thermal printer users, however, may want to type nln\*n, where "n" identifies a thermal printer

**INFONET:** The c is a terminal recognition character.

**TELENET:** Any computer and most terminals use dl <CR>.

**TYMNET:** Any computer and most terminals use the letter a without a <CR>.

### 3 TELENET 2400 bps: type @ <CR> instead of <CR> <CR>.

**TYMNET, 2400 bps:** the first response received from the network will be a blank screen instead of the nonsense characters. Just proceed with the instructions.

**ACCESS PROCEDURES FOR MEDLARS PDQ SYSTEM**

(See footnotes next page)

KEY:

→ = Your response  
<CR> = Carriage Return

**COMPUSERVE**  
Full Duplex 1

Dial local number  
Connect phone & terminal

→ <CR>

**INFONET**  
Full Duplex 1

Dial local number  
Connect phone & terminal

→ <CR> <CR>

**TELENET**  
Full Duplex 1

Dial local number  
Connect phone & terminal

→ <CR> <CR> 3

**TYMNET**  
Full Duplex 1

Dial local number  
Connect phone & terminal

xx:@<xxx@>.xx:@xxx@<  
xxx:@<xx 3

**DIRECT DIAL**  
Half Duplex Only

This option is for the  
Washington, D.C. area only.  
Dial:  
480-3150 300/1200 bps  
480-4360 2400 bps

#

TELENET  
202 19B  
TERMINAL=

→ a 2

(Type your correct terminal  
identifier; see footnote.)

Connect phone & terminal

05DCF

→ c <CR> 3

→ d1 <CR> 2

-2544-021-  
PLEASE LOGIN:

Host Name:

PORT: 49  
CENTER:

(Type your correct terminal  
identifier; see footnote )

→ nlmmenu <CR>

→ NLM <CR> 2

→ n1 <CR> 2

@

WELCOME TO NATIONAL  
LIBRARY OF MEDICINE'S  
COMPUTER SERVICES

NLM Main Menu  
(Menu choices will follow)  
Please select a service  
number >>

→ p <CR>

Connected to 02NLM

COMMUNICATION  
ESTABLISHED

301 20 CONNECTED

→ 3 <CR>

PLEASE ENTER LOGIN

→ logon <CR>

→ logon <CR>

→ logon <CR>

+

→ logon <CR>

IKJ56700A ENTER USERID

IKJ56700A ENTER USERID

IKJ56700A ENTER USERID

NLM: call connected  
IKJ56700A ENTER USERID

IKJ56700A ENTER USERID

xy201/PDQpassword  
(Type your Code & PDQ  
Password)

xy201/PDQpassword  
(Type your Code & PDQ  
Password)

xy201/PDQpassword  
(Type your Code & PDQ  
Password.)

xy201/PDQpassword  
(Type your Code & PDQ  
Password.)

xy201/PDQpassword  
(Type your Code & PDQ  
Password.)

## FOOTNOTES FOR ACCESSING MEDLARS PDQ SYSTEM

### 1 Half Duplex Instructions:

**COMPUSERVE:** at the  
Host Name: prompt, type  
'NLM <CR>  
Proceed with the above  
instructions.

**INFONET:** at the  
COMMUNICATION ESTABLISHED  
prompt, type Ctrl P. At the \* prompt,  
type set 2:0 <CR> Proceed with the  
above instructions.

**TELENET:** at the @  
prompt, type half <CR>.  
Proceed with the above  
instructions.

**TYMNET:** at the please log in:  
prompt, type Ctrl H followed  
by mmmenu <CR>. Proceed  
with the above instructions.

(a Ctrl key sequence means that you depress and hold down the Ctrl key, press the letter key and then release both keys)

### 2 Use the appropriate terminal identifier for your equipment.

**COMPUSERVE:** Most computer users do not need to specify a terminal ID. Thermal printer users, however, may want to type nlm\*n, where "n" identifies a thermal printer.

**INFONET:** The c is a terminal recognition character.

**TELENET:** Any computer and most terminals use d1 <CR>.

**TYMNET:** Any computer and most terminals use the letter a without a <CR>.

### 3 TELENET, 2400 bps: type @ <CR> instead of <CR> <CR>.

**TYMNET, 2400 bps:** the first response received from the network will be a blank screen instead of the nonsense characters. Just proceed with the instructions.



**ACCESS PROCEDURES FOR MEDLARS TOXNET SYSTEM**  
*(See footnotes next page)*

KEY: → = Your response  
 <CR> = Carriage Return

**COMPUSERVE**  
*Full Duplex 1*

Dial local number  
*Connect phone & terminal*

→ <CR>

**INFONET**  
*Full Duplex Only*

Dial local number  
*Connect phone & terminal*

→ <CR> <CR>

**TELENET**  
*Full Duplex 1*

Dial local number  
*Connect phone & terminal*

→ <CR> <CR> 3

**TYMNET**  
*Full Duplex 1*

Dial local number  
*Connect phone & terminal*

xx:@<xxx@:xx:xxx@<  
 xxx:@<xx 3

**DIRECT DIAL**  
*Half Duplex Only*

*This option is for the  
 Washington, D.C area only.*  
 Dial: 946-1184

*Connect phone & terminal*

05DDCF  
 Host Name:

→ c <CR> 2

PORT: 56  
 CENTER:

→ dl <CR> 2  
 (Type your correct terminal  
 identifier; see footnote.)

@

-2544-021-  
 please long in:

→ TOXNET <CR>

→ tn <CR>

→ c toxnet <CR>

→ toxnet <CR>

→ <CR> <CR>

Connected to 02TOXNET

COMMUNICATION  
 ESTABLISHED

TOXNET CONNECTED  
 CONNECTION FROM  
 31102020011103

P 16  
 TOX IS ONLINE

WELCOME TO THE  
 NATIONAL LIBRARY OF  
 MEDICINES TOXICOLOGY  
 DATA NETWORK (TOXNET)  
 PLEASE ENTER USERID/  
 PASSWORD  
 #####

WELCOME TO THE  
 NATIONAL LIBRARY OF  
 MEDICINES TOXICOLOGY  
 DATA NETWORK (TOXNET)  
 PLEASE ENTER USERID/  
 PASSWORD  
 #####

WELCOME TO THE  
 NATIONAL LIBRARY OF  
 MEDICINES TOXICOLOGY  
 DATA NETWORK (TOXNET).  
 PLEASE ENTER USERID/  
 PASSWORD  
 #####

WELCOME TO THE  
 NATIONAL LIBRARY OF  
 MEDICINES TOXICOLOGY  
 DATA NETWORK (TOXNET)  
 PLEASE ENTER USERID/  
 PASSWORD  
 #####

WELCOME TO THE  
 NATIONAL LIBRARY OF  
 MEDICINES TOXICOLOGY  
 DATA NETWORK (TOXNET)  
 PLEASE ENTER USERID/  
 PASSWORD  
 #####

→ xyz01/sun <CR>  
*(Type your Code & Password)*

→ xyz01/sun <CR>  
*(Type your Code & Password)*

→ xyz01/sun <CR>  
*(Type your Code & Password.)*

→ xyz01/sun <CR>  
*(Type your Code & Password.)*

→ xyz01/sun <CR>  
*(Type your Code & Password.)*

## FOOTNOTES FOR ACCESSING MEDLARS TOXNET SYSTEM

### 1 Half Duplex Instructions:

**COMPUSEAVE:** at the  
Host Name: prompt, type  
'TOXNET <CR>. Proceed  
with the above instructions.

**TELENET:** at the @  
prompt, type half <CR>.  
Proceed with the above  
instructions.

**TYMNET:** at the please log in:  
prompt, type Ctrl H followed  
by toxnet <CR>. Proceed  
with the above instructions.

(a Ctrl key sequence means that you depress and hold down the Ctrl key, press the letter key and then release both keys)

### 2 Use the appropriate terminal identifier for your equipment.

**INFONET:** The c is a terminal recognition character.

**TELENET:** Any computer and most terminals use dl <CR>.

**TYMNET:** Any computer and most terminals use the letter a without a <CR>.

### 3 TELENET, 2400 bps: type @ <CR> instead of <CR> <CR>.

**TYMNET, 2400 bps:** the first response received from the network will be a blank screen instead of the nonsense characters. Just proceed with the instructions.

**NATIONAL LIBRARY OF MEDICINE (NLM)  
ONLINE SERVICES APPLICATION**

FORM A ONLINE APPLICATION FORM  
FORM B ONLINE BILLING AGREEMENT  
MEMORANDUM OF UNDERSTANDING

Complete and return.  
Complete and return (see reverse).  
Read carefully and retain.

Return forms A and B to:  
MEDLARS Management Section  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894

Questions? Contact the MEDLARS Service Desk:  
Monday - Friday, 8:30 A.M. - 5:00 P.M. ET  
Telephone: (800) 638-8480  
(301) 496-6193 (Maryland residents)  
Fax: (301) 496-0822

**NLM ONLINE APPLICATION FORM**

I am applying as an:

- Individual
- Institution

**STUDENTS/SCHOOLS/COLLEGES:**

The National Library of Medicine has a special program at reduced rates for MEDLARS® access for students. If you are: a college or university student; a college/university/educational institution offering online search instruction; or a resident, fellow, or intern and you would like to participate in this program, please call the MEDLARS® Service Desk to request the student code application forms: (800) 638-8480.

**PERSONAL NAME:**

\_\_\_\_\_

**INSTITUTION NAME (if applicable):**

\_\_\_\_\_

1. Please describe your organization or profession's primary function or major area of service. Be as specific as possible. Include your area of specialty if you are a health professional.
  
2. Please check the *one* administrative classification that best describes you or your organization:
  - a. \_\_\_ Federal Government
  - b. \_\_\_ State/multi-state government or state university
  - c. \_\_\_ County/local government
  - d. \_\_\_ Non-government, not-for-profit or nonprofit
  - e. \_\_\_ Non-government, for-profit or commercial
  - f. \_\_\_ Other. Please specify: \_\_\_\_\_
  
3. Please check this box  if you plan to use NLM's GRATEFUL MED® software to search MEDLARS®.

**FOR NLM USE ONLY:**

Date Received \_\_\_\_\_ User Type \_\_\_\_\_ Telecommunications Type \_\_\_\_\_

**NLM ONLINE BILLING AGREEMENT**

Complete and sign this form, which authorizes the National Technical Information Service (NTIS), the billing agent for MEDLARS®, to bill you for use of NLM's online services. Return with Form A to:

MEDLARS Management Section  
 National Library of Medicine  
 8600 Rockville Pike  
 Bethesda, MD 20894

Include purchase orders or checks for deposit accounts. No advance payment is required if you select the credit card or direct payment option. Future rate changes may be announced; continued use of the services for 90 days after any announced rate change authorizes NTIS to bill at the changed rate. Government users must include a purchase order (PO) with these forms. NOTE: Interest will be charged on any account 60 days overdue. Federal, state, and local government users are exempt from interest charges.

**User Address:**

**Billing Address (if different):**

Personal Name

Personal Name

Institution/Organization (if applicable)

Institution/Organization (if applicable)

Office (optional)

Office (optional)

Street Address

Street Address

City State Zip

City State Zip

( )  
 Phone (include area code)

( )  
 Phone (include area code)

I/We elect to pay NTIS for use of the NLM's online services in the manner specified below (check one):

**Direct Payment:** Payment is due upon receipt of monthly invoices. Make checks payable to NTIS.

**Credit Card:**  Visa  MasterCard  American Express Card # \_\_\_\_\_

Expiration Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Authorizing Signature \_\_\_\_\_

**Deposit Account:** This type of account requires an advance deposit of funds. The amount deposited should be sufficient to cover 3 month's online usage; a minimum of \$25 is required to open an account. At present, charges for a 1-month period average \$100 for a hospital library and \$20 for a health professional. Users choosing this method will receive a monthly Statement of Account showing the monthly charges deducted from the deposit account balance. It is possible to use an existing deposit account which was established for obtaining other NTIS products or services. Federal users are permitted to use transfer of funds.

There are no subscription fees or minimum charges associated with MEDLARS® User ID Codes.

Signature (required for all applicants)

Printed/Typed Name

Date

## MEMORANDUM OF UNDERSTANDING

**You should carefully read the following Memorandum of Understanding. The use of your assigned MEDLARS ® User ID Code for NLM online computer services indicates your acceptance of the following terms, conditions and responsibilities.**

This Agreement between the National Library of Medicine (NLM) and the participating organization or individual is intended to assure a common understanding of the responsibilities of each party.

1. NLM agrees to provide:
  - a. Access to its public online bibliographic databases as determined by NLM.
  - b. Technical data and documentation detailing system usage and modifications, some of which are "for purchase" items.
  - c. Assistance during normal business hours (8:30 a.m. - 5:00 p.m. Eastern Time, Monday-Friday) to resolve operating problems and difficulties.
2. The participating organization or individual agrees to:
  - a. Purchase appropriate documentation materials (e.g., Manuals, etc.).
  - b. Obtain and pay for equipment necessary to access the NLM computers, including telephone installation and rental, and rental or purchase of an appropriate terminal or microcomputer equipment.
  - c. Protect the system from unauthorized use.
  - d. Pay charges assessed by NLM for its online services (including royalty fees charged by database suppliers).
  - e. Indicate clearly, if fees are charged to others for online services, the portion of the fee that is assessed by NLM for services.
3. Rate changes shall become effective 90 days after written notice, except that royalty charge changes for certain NLM databases may be passed on to the participating organization/individual without advance notice. Rate changes will be announced in the NLM Technical Bulletin, a publication that is sent monthly to each user organization/individual.
4. Some material in the NLM databases is from copyrighted publications of the respective copyright claimants. Users of the database are referred to the publication data appearing in the bibliographic citations, as well as to the copyright notices appearing in the original publication, all of which are incorporated by reference.
5. NLM databases shall not be issued for resale, republication, or redistribution in machine-readable or any other format, except as authorized under a signed NLM License Agreement to Lease NLM Databases in Machine-Readable Form.
6. Data obtained by downloading portions of the database (i.e., retrieving portions of a database online for subsequent storage on a personal computer) or as Subsets\* for "personal" use may be retained in machine-readable form by those employing automated technology such as microcomputers.
7. Future revisions of this Memorandum of Understanding will be announced in a special section of the NLM Technical Bulletin.
8. This Agreement is effective for an indefinite period. It may be terminated at any time by either party by a 90-day written notice, or terminated at any time by the user by a 30-day written notice prior to the effective date of a change in rates. Failure of the participating organization or individual to adhere to the terms of this Agreement may result in an immediate termination or suspension of access to NLM's online databases. Online access to the databases by the participating organization or individual shall be severed upon termination of this Agreement in writing by either party.
9. Interest will be charged on any account 60 days overdue. Federal, state and local government users are exempt from interest charges.

\* Subsets policy for portions of databases loaded for local re-use are covered in the NLM License Agreement to Lease NLM Databases in Machine-Readable Form.

OVER

10. NLM represents that data provided under this Agreement were formulated with a reasonable standard of care. Except for this representation, and as otherwise specifically provided in this Agreement, NLM makes no warranties, as to fitness for particular purposes, and will not be liable for consequential or incidental damages, or other claims or demands arising out of the use of MEDLARS®, MEDLINE®, GRATEFUL MED®, or any products, services, or documentation. Users are responsible for claims arising out of third-party use. Further, the National Library of Medicine reserves the right to revise programs, products, or publications and to make changes from time to time in the content without obligation to notify any person of such revisions or changes.

**After NLM processes your application, you will receive:**

- A User ID Code and passwords for accessing the MEDLARS® system. Each code (except student codes) comes with a \$40.00 practice credit, which represents approximately two hours of MEDLINE® online searching.
- System documentation including access procedures, telephone access numbers, equipment settings, pocket cards, and general information about MEDLARS® and NLM.
- The monthly publication, the NLM Technical Bulletin, in which news about the NLM computer systems, databases, and price changes is published.

If you are restricted to ONE-YEAR AGREEMENTS only:

Indicate the month that you want the code to become effective and provide a typed name AND signature below. You must provide NLM with written notice of renewal within 30 days prior to the expiration date for each successive year that you intend to keep the code active.

PERSONAL NAME: \_\_\_\_\_

INSTITUTION (IF APPLICABLE): \_\_\_\_\_

REQUESTED EFFECTIVE DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_

SIGNATURE: \_\_\_\_\_

# NLM AUTOMATIC SDI SERVICE REQUEST FORM

*Part I* (To be completed by all users)

USER ID

Mailing address for printouts:

\_\_\_\_\_  
Institution/Office/Name

(No more than 50 characters  
per line; 1 line per item)

\_\_\_\_\_  
Address

\_\_\_\_\_  
City, State, Zip

Contact person for SDI service at your organization:

\_\_\_\_\_  
Name

\_\_\_\_\_  
Telephone number

*Part II* (To be completed by all users)

\_\_\_\_\_ BEGIN service on the \_\_\_\_\_ database.\*

\_\_\_\_\_ CHANGE a previously submitted form for the \_\_\_\_\_ database.\*

\_\_\_\_\_ MAILING ADDRESS

\_\_\_\_\_ PRINT AND/OR SORT FORMATS (specify in PART III)

\_\_\_\_\_ CANCEL service on the \_\_\_\_\_ database.\*

\*Submit one copy for each database on which you have stored or intend to store searches. If SDI service is desired on both TOXLINE and TOXLIT, one form is sufficient; check the appropriate box:

TOXLINE

TOXLIT

BOTH

*Part III* To be completed if:

1. you are using the number range 701-801\*\* on any database
2. You wish to substitute a print and/or sort format different from those shown on the reverse

**DATABASE IDENTIFIER**

Enter one of the letters shown on the reverse: A, D, C, B, H, P, S, or T

**NUMERICAL RANGE**

001-200  
201-400  
401-600  
601-700  
701-800\*\*

**ELEMENTS TO BE PRINTED**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**SORT FORMAT**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*\*USERS NAMING SEARCHES IN THIS RANGE MUST SUPPLY PRINT ELEMENTS AND A SORT FORMAT. FOR EXAMPLE:

S

701-800

AU, TI, SO, LA

JNL

FOR COMPLETE STORESEARCH AND AUTOMATIC SDI INSTRUCTIONS SEE THE ONLINE SERVICES REFERENCE MANUAL 5.2 RETURN ONE COMPLETED FORM FOR EACH DATABASE TO

MEDLARS MANAGEMENT SECTION  
NATIONAL LIBRARY OF MEDICINE  
8600 ROCKVILLE PIKE  
BETHESDA, MARYLAND 20894

<u>DATABASE NAME &amp; IDENTIFYING LETTER</u>	<u>NUMBER RANGE</u>	<u>PRINT FORMAT OR ELEMENTS</u>	<u>SORT FORMAT</u>	<u>SORT ELEMENTS &amp; DIRECTION</u>	
<b>D</b>	AIDSLINE	D001-200	STANDARD	JNL	TA A, DP D
		D201-400	FULL, INCLUDE AD,SI		VI D, IP D
		D401-600	AU, TI, TT, LA, MH, AB, AD, SO, SI		PG A
		D601-700	AU, TI, AB, SO, SI		
		D701-800*	USER MUST SPECIFY		
<b>A</b>	AVLINE	A001-200	STANDARD	AUTI	PN A, CN A,
		A201-400	LOAN		TI A
		A401-600	FULL		
		A601-700	DETAILED		
		A701-800*	USER MUST SPECIFY		
<b>C</b>	CANCERLIT	C001-200	STANDARD	JNL	TA A, YR A,
		C001-400	FULL		TI A
		C401-600	DETAILED		
		C601-700	AU, TI, AB, PT, SO		
		C701-800*	USER MUST SPECIFY		
<b>B</b>	CATLINE	B001-200	STANDARD	AUTI	PN A, CN A,
		B201-400	ACQUISITIONS		TI A
		B401-600	FULL		
		B601-700	DETAILED		
		B701-800*	USER MUST SPECIFY		
<b>H</b>	HEALTH	H001-200	STANDARD	JNL	TA A, DP D,
		H201-400	FULL		IM A, VI D,
		H401-600	AU, TI, TT, LA, MH AB, SO		IP D
		H601-700	AR		
		H701-800*	USER MUST SPECIFY		
<b>P</b>	POPLINE	P001-200	STANDARD	AUTI	CN A, AU A,
		P201-400	AR		TI A
		P401-600	SD INCLUDE GN, LA AD, KW		
		P601-700	SD INCLUDE GN, AD		
		P701-800*	USER MUST SPECIFY		
<b>S</b>	SDILINE (MEDLINE)	S001-200	STANDARD	JNL	TA A, DP D,
		S201-400	FULL INCLUDE AD		VI D, IP D
		S401-600	AU, TI, TT, LA, MH AB, AD, SO		PG A
		S601-700	AU, TI, AB, SO		
		S701-800*	USER MUST SPECIFY		
<b>T</b>	TOXLINE TOXLIT	T001-200	STANDARD	AUTI	AU A, TI A
		T201-400	FULL**		
		T401-600	DETAILED		
		T601-700	SI, AU, CN, TI, AD, SA, SO		
		T701-800**	USER MUST SPECIFY		

\*There are no default print and sort elements for searches named in the 701-800 range. Please complete Part III of this form to specify.

\*\*The FULL format includes MeSH Headings for TOXBIB.



CHANGE OF ADDRESS FORM  
(U.S. users only)

User ID Code \_\_\_\_\_ (Must be included)

Check here \_\_\_\_\_ if you purchased GRATEFUL MED.  
The new address information will be forwarded to NTIS.

New Billing Address: (please print or type)

Name: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_

New NLM Technical Bulletin/GRATEFUL MED Address:

Name: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_

**NOTE:**

This form **DOES NOT** change the address of Automatic SDIs  
or your stored address for offline prints. Call the MMS  
Service Desk for information on changing these addresses.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

Please affix current address label here:

Please mail this form to:

MEDLARS Management Section  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894



REQUEST FOR NLM ONLINE TRAINING

The Fundamentals and Follow-Up courses concentrate on command language searching and thus are not recommended for GRATEFUL MED searchers.

\*\*\*\*\*

DATE: \_\_\_\_\_

TRAINEE NAME: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_ X \_\_\_\_\_

ORGANIZATION: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

User ID code: \_\_\_\_\_ OR I am applying for a User ID code\* /\_\_\_\_/
\*STOP! If you are currently applying for a User ID code, be sure to include the complete "NLM Online Application Form" with you training request.

TRAINING CLASS INFORMATION: You may apply for either the "Fundamentals" or the "Follow-Up" class but NOT both. Check all the modules you will attend.

1. FUNDAMENTALS OF MEDLARS SEARCHING

- a. Module 1 - Intro to MEDLARS/MEDLINE (Monday-Wednesday) \_\_\_\_\_
b. \* Module 2 - Chemical/Toxicological Databases (Thursday) \_\_\_\_\_
c. \* Module 3 - Cancer Databases (Friday morning) \_\_\_\_\_
\*Must have attended Module 1 prior to attending these modules.

DATES/SITES REQUESTED: \_\_\_\_\_ 1st Choice \_\_\_\_\_ 2nd Choice

2. FOLLOW-UP TO THE FUNDAMENTALS: (Requires familiarity with MEDLARS.)

- a. Module 1 - MEDLINE/MeSH/Health Search Skills (Monday) \_\_\_\_\_
b. Module 2 - Cancer Information Searching (Tuesday a.m.) \_\_\_\_\_
c. Module 3 - POPLINE/BIOETHICS/HISTLINE (Tuesday p.m.) \_\_\_\_\_
d. Module 4 - Technical Services Databases (Wednesday) \_\_\_\_\_
e. Module 5 - CHEMLINE/TOXLINE/TOXLIT Searching (Thursday) \_\_\_\_\_
f. Module 6 - Tips & Techniques for TOXNET (Friday) \_\_\_\_\_

DATES/SITES REQUESTED: \_\_\_\_\_ 1st Choice \_\_\_\_\_ 2nd Choice

MAIL TRAINING REQUEST TO: MEDLARS Management Section
National Library of Medicine
8600 Rockville Pike, Bldg. 38A
Bethesda, Maryland 20894
QUESTIONS?
Call: 800/638-8480 or 301/496-6193

\*\*\*\*\*

NLM USE ONLY - Please do not write in this area.

"FUNDAMENTALS"

"FOLLOW-UP"

Site: \_\_\_\_\_

Site: \_\_\_\_\_

Class Dates: \_\_\_\_\_

Class Dates: \_\_\_\_\_

**NLM ONLINE SERVICES TRAINING  
1990 SCHEDULE OF CLASSES**

**FUNDAMENTALS OF MEDLARS SEARCHING**

JANUARY	8-12	PROVIDENCE, RI	JULY	9-13	* BETHESDA, MD
	8-12	* BETHESDA, MD		16-20	LOS ANGELES, CA
	8-12	* DENVER, CO		23-27	HANOVER, NH
FEBRUARY	5- 9	* LOS ANGELES, CA	AUGUST	6-10	NEW YORK, NY
	5- 9	* MINNEAPOLIS, MN		13-17	SEATTLE, WA
	12-16	* NEW YORK, NY		13-17	* CHICAGO, IL
	26- 2	* BETHESDA, MD		20-24	BETHESDA, MD
MARCH	5- 9	* HOUSTON, TX	SEPTEMBER	10-14	BETHESDA, MD
	12-16	PORTLAND, OR		10-14	ALBUQUERQUE, NM
	19-23	* BETHESDA, MD	OCTOBER	1- 5	SAN JOSE, CA
APRIL	2- 6	* PHOENIX, AZ		15-19	GAINESVILLE, FL
	2- 6	* BETHESDA, MD		22-26	BETHESDA, MD
	23-27	* NEW YORK, NY		29- 2	LOS ANGELES, CA
	23-27	LOS ANGELES, CA	NOVEMBER	5- 9	BETHESDA, MD
MAY	7-11	* LOUISVILLE, KY		5- 9	WICHITA, KS
	14-18	* BETHESDA, MD	DECEMBER	3- 7	PORTLAND, OR
JUNE	4- 8	ATLANTA, GA		10-14	CHAPEL HILL, NC
	18-22	OMAHA, NE		10-14	BETHESDA, MD
	25-29	* BETHESDA, MD			

**FOLLOW-UP TO THE FUNDAMENTALS**

JANUARY	22-26	SEATTLE, WA	JUNE	11-15	LOS ANGELES, CA
	29- 2	* BETHESDA, MD	JULY	16-20	SALT LAKE CITY, UT
MARCH	5- 9	* NASHVILLE, TN		30- 3	* BETHESDA, MD
APRIL	2- 6	* CHICAGO, IL	NOVEMBER	5- 9	NEW YORK, NY
	30- 4	* BETHESDA, MD		26-30	BETHESDA, MD
MAY	7-11	BOSTON, MA	DECEMBER	3- 7	OKLAHOMA CITY, OK

\* This denotes that the class is filled as of 4/19/90, please call the MEDLARS Service Desk for the most current status.

# REQUEST FOR ONLINE TRAINING CODE(S)

FOR USE IN PRACTICING MATERIAL COVERED IN "BASICS" OR GRATEFUL MED TRAINING

CHECK ONE:

I AM EITHER ENGAGING IN SELF STUDY  
OR TEACHING A COURSE USING THE MANUAL,  
\_\_\_\_\_ "THE BASICS OF SEARCHING MEDLINE"

I AM TEACHING A COURSE ON  
SEARCHING USING NLM'S GRATEFUL MED  
\_\_\_\_\_ AND NEED CODES FOR STUDENTS

NAME OF REQUESTING INDIVIDUAL OR TRAINER \_\_\_\_\_

ORGANIZATION (IF APPLICABLE) \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY/STATE/ZIP CODE \_\_\_\_\_

PHONE NUMBER (INCLUDE AREA CODE) \_\_\_\_\_

LOCATION OF TRAINING (IF A COURSE) \_\_\_\_\_

DATE(S) CODE(S) NEEDED \_\_\_\_\_

NUMBER OF CODES\* \_\_\_\_\_

I agree to send the National Library of Medicine a profile sheet for myself or for persons trained after use of the training code(s).

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

\*One code per terminal/microcomputer. No more than 10 codes for one course without written request for special consideration. Each code is limited to no more than six hours over a time period not to exceed 3 weeks total time.

Return this form to the MEDLARS Management Section. Fold as indicated on reverse and affix postage. Allow two weeks for return of code(s). Call the MMS Service Desk, M-F, 8:30 am - 5 pm, 1-800-638-8480, if you need code(s) for a special rush situation.

FOR NLM USE ONLY

DATE(S) CODE(S) NEEDED \_\_\_\_\_

CODE(S) ASSIGNED \_\_\_\_\_

MMS 1989

## PARTICIPANT'S PROFILE / TRAINING CODE USE

A training code was used to practice searching for: (please check one):

The Basics of Searching MEDLINE  
(either self-study or attendance at course)

OR

GRATEFUL MED  
training course

1. Name: \_\_\_\_\_

2. Organization (if applicable) \_\_\_\_\_

3. Address: \_\_\_\_\_

4. City/State/Zip Code \_\_\_\_\_

5. Daytime Telephone Number ( ) \_\_\_\_\_ Ext. \_\_\_\_\_

6. Profession (general, such as):

\_\_\_ Physician

\_\_\_ Researcher

\_\_\_ Medical Student

\_\_\_ Dentist

\_\_\_ Nurse

\_\_\_ Librarian/Information Specialist

\_\_\_ Other (please specify): \_\_\_\_\_

7. If a physician, please check your area of specialization:

\_\_\_ ALLERGY AND IMMUNOLOGY

\_\_\_ OTOLARYNGOLOGY

\_\_\_ ANESTHESIOLOGY

\_\_\_ PATHOLOGY

\_\_\_ COLON AND RECTAL SURGERY

\_\_\_ PEDIATRICS

\_\_\_ DERMATOLOGY

\_\_\_ PHYSICAL MEDICINE AND REHABIL.

\_\_\_ EMERGENCY MEDICINE

\_\_\_ PLASTIC SURGERY

\_\_\_ FAMILY PRACTICE

\_\_\_ PREVENTIVE MEDICINE

\_\_\_ INTERNAL MEDICINE

\_\_\_ PSYCHIATRY AND NEUROLOGY

\_\_\_ NEUROLOGICAL SURGERY

\_\_\_ RADIOLOGY

\_\_\_ NUCLEAR MEDICINE

\_\_\_ SURGERY

\_\_\_ OBSTETRICS AND GYNECOLOGY

\_\_\_ THORACIC SURGERY

\_\_\_ OPHTHALMOLOGY

\_\_\_ UROLOGY

\_\_\_ ORTHOPAEDIC SURGERY

8. Date(s) of training/self study: \_\_\_/\_\_\_/\_\_\_ City/site of training (if course): \_\_\_\_\_

Thank you for providing this information and for returning the form. We hope you enjoyed your practice time on the MEDLARS databases. Fold along indicated lines on reverse and return to NLM.

REQUEST FOR MASTER ACCOUNT

Return Form To:

MEDLARS Management Section  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894

Billing Address:

Personal Name: \_\_\_\_\_

Institution: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_

If you would like your user codes to be billed with one invoice, under a master account, please indicate the main user code and the codes that will be "mapped" to it.

Main User ID Code: \_\_\_\_\_

Mapped ID Codes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If, in the future, you would like other ID codes to be added to your master account, please indicate the Main User ID Code on each Online Services Application Form.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

MMS 7/89





# NTIS ORDER FORM

**TELEPHONE ORDERS**      TELEX 89-9405    Telecopier (703) 321-8547    Subscriptions: (703) 487-4630  
Call (703) 487-4650      (See reverse side for RUSH and EXPRESS ordering options)

- **HANDLING FEE:** A handling fee is required for each order except for Express, Rush, Subscription, or Pickup orders.
- **SHIPPING:**    **U.S.:** Printed reports and microfiche copies are shipped First Class Mail or equivalent.  
                         **FOREIGN:** Regular service: Printed reports and microfiche copies are shipped surface mail.  
                         Air Mail service to Canada and Mexico: add \$3 per printed report; 75¢ per microfiche copy.  
                         Air Mail service to all other addresses: add \$6 per printed report; 75¢ per microfiche copy.  
                         **SUBSCRIPTIONS and standing orders are sent surface mail; contact NTIS for air mail rates.**

## 1 Address Information

DTIC Users Code \_\_\_\_\_ Contract No \_\_\_\_\_ Last six digits

**PURCHASER:**      **DATE:** \_\_\_\_\_      **SHIP TO** (Enter ONLY if different from purchaser):

Last Name _____	Last Name _____
First Initial _____	First Initial _____
Title _____	Title _____
Company/Organization _____	Company/Organization _____
Address _____	Address _____
City/State/ZIP _____	City/State/ZIP _____
Attention _____	Attention _____
Telephone number _____	Telephone number _____

## 2 Method of Payment

Charge my NTIS Deposit Account \_\_\_\_\_       Check/Money order enclosed for \$ \_\_\_\_\_

Charge my     Amer. Express     VISA     MasterCard       Please bill **ADD \$7.50 per Order** (See below for restrictions)†

Account No \_\_\_\_\_ Exp. \_\_\_\_\_      Purchase Order No. \_\_\_\_\_

Signature: \_\_\_\_\_      Employer Identification No. \_\_\_\_\_

(Required to validate all orders)

## 3 Order Selection (For Computer products, see reverse)

Enter NTIS order number(s) <small>(Ordering by title only will delay your order)</small>	Customer Routing †† <small>(up to 8 digits)</small>	QUANTITY		UNIT PRICE	Foreign Air Mail	TOTAL PRICE
		Paper Copy	Micro-fiche			
1. _____						
2. _____						
3. _____						
4. _____						
5. _____						
6. _____						
7. _____						

**OVER** - Order continued on reverse

SUBTOTAL From Other Side	_____
Regular Service Handling Fee per order <small>(\$3 U.S., Canada, Mexico; \$4 others)</small>	_____
Billing Fee if required (\$7.50)	_____
<b>GRAND TOTAL</b>	_____

† Billing Service: This service is restricted to U.S. addresses for an additional \$7.50 per order. Your business employer identification number plus phone number of the office paying the bill are required. A late payment charge will be applied to all billings more than 30 days overdue.

†† Customer Routing Code: NTIS can label each item for routing within your organization. If you want this service, put your routing code in this box.

# NTIS ORDER FORM - Side 2

## 3 Order Selection (Cont.)

Enter the NTIS order number(s) (Ordering by title only will delay your order)	Customer Routing <sup>††</sup>	QUANTITY		UNIT PRICE	Foreign Air Mail	TOTAL PRICE
		Paper Copy	Micro- fiche			
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
<b>Subtotal</b>						

**ENTER this amount on the other side of this form.**



## 4 Computer Products Order Selection

If you have questions about a particular computer product, please call our Computer Products Support Group at (703) 487-4763.

Enter the NTIS order number(s) (Ordering by title only will delay your order)	Customer Routing <sup>††</sup>	TAPE DENSITY (9 track)		TOTAL PRICE
		1600bpi	6250bpi	
20.				
21.				
22.				
23.				
<b>Subtotal</b>				

All magnetic tapes are sent air mail or equivalent service to both U.S. and foreign addresses.

**ENTER this amount on the other side of this form.**



### SPECIAL RUSH and EXPRESS ORDERING OPTIONS

Telephone: (800) 336-4700  
 in Virginia call  
 (703) 487-4700

**RUSH SERVICE:** Orders are processed within 24 hours and sent First Class or equivalent.

- Pick up at NTIS - \$7.50 per item
- Delivery to U.S. addresses - \$10 per item

**EXPRESS SERVICE (U.S. Addresses Only):** Orders are processed within 24 hours AND delivered by overnight courier for an additional \$20 per item.

**SUGGESTION FOR MEDICAL SUBJECT HEADINGS CHANGE**

1. Suggested change: (One or two sentence statement of what you feel is needed.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. How often have you encountered this concept? \_\_\_\_\_

\_\_\_\_\_

3. Reason for suggesting change: (If suggesting a new term, please mention the sense or context in which the term occurs if you cannot define it.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Citations: (One or more authoritative citations, either from MEDLINE or other sources, are requested particularly if the concept or term is quite new, or rarely written about.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Name: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_/\_\_\_\_\_





**NLM TECHNICAL BULLETIN FEB 90**

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DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service, National Institutes of Health  
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BETHESDA, MARYLAND 20894

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PERMIT No G291

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# The NLM

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JANUARY 1990

No. 249

# Technical Bulletin

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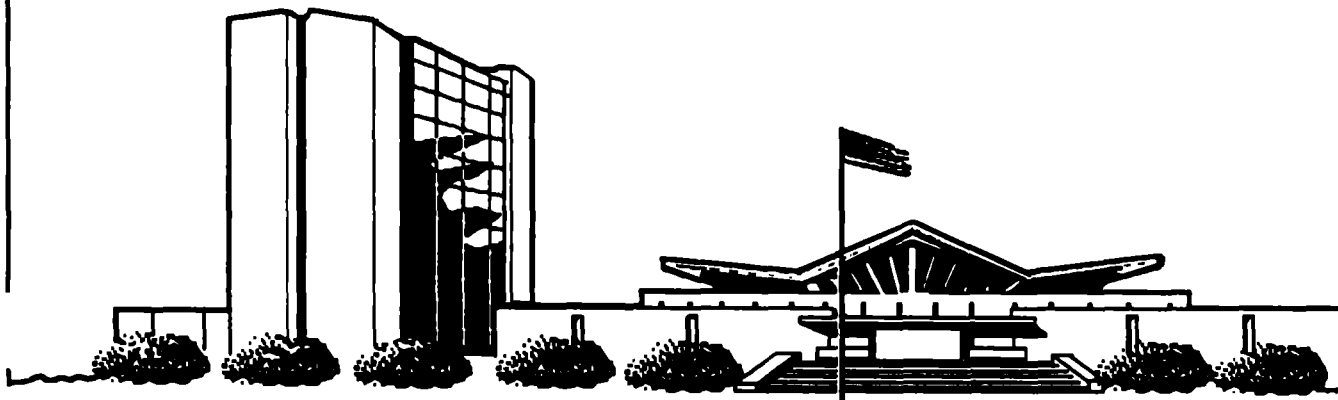
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## Announcing ChemID: the new Chemical Identification File on ELHILL

George F. Hazard, Jr., Ph.D.  
Specialized Information Services, NLM

In February 1990, ChemID, a new MEDLARS database, will be made available on ELHILL. Watch the online news for the announcement of the operational date. This new file is a chemical dictionary/thesaurus containing about 200,000 records. It provides access to chemical identifier data from a variety of public sources, and is priced at the same rates as MEDLINE (approximately \$23.50 per prime time hour). There will be domestic access only to this file, during the initial 6-to-12 month trial period. ChemID will allow easy chemical searching for the most commonly occurring substances of biomedical and regulatory interest. It was developed as a support file for the non-royalty TOXLINE and TOXLINE65 files and will lead users to other files in the ELHILL and TOXNET systems. ChemID joins CHEMLINE and the MeSH vocabulary

Continued on page 7



**NLM TECHNICAL BULLETIN JAN 90**

MEDLARS <sup>®</sup> DATABASE	TOTAL RECORDS	DATES COVERED	DATE LAST UPDATED	LATEST UPDATE TAG
ELHILL <sup>®</sup> COMPUTER				
AIDSDRUGS	75		20 JAN 90	
AIDSLINE**™	28,199	JAN 80-MAR 90	30 JAN 90	9003(EM)
AIDSTRIALS	231		20 JAN 90	
AVLINE <sup>®</sup>	20,132	THROUGH 1990	26 JAN 90	
BIOETHICS <sup>®</sup>	28,802	JAN 73-DEC 89	16 DEC 89	8912(EM)
CANCERLIT <sup>®</sup>	702,630	JAN 63-JAN 90	13 JAN 90	9001(EM)
CATLINE <sup>®</sup>	656,809	THROUGH 1990	26 JAN 90	
CHEMLINE <sup>®</sup>	894,795		16 DEC 89	8912(EM)
CLINPROT <sup>®</sup>	7,577		25 JAN 90	9001(EM)
DENTALPROJ	776		28 JUN 89	
DIRLINE <sup>®</sup>	16,303		11 NOV 89	
DOCUSER <sup>®</sup>	11,787		29 JAN 90	
HEALTH	483,891	JAN 75-FEB 90	10 JAN 90	9002(EM)
HISTLINE <sup>®</sup>	91,883		11 JAN 90	9001(EM)
MEDLINE* <sup>®</sup>	628,161	JAN 88-MAR 90	27 JAN 90	9003(EM)
MED86	651,873	JAN 86-DEC 87	09 DEC 89	
MED83	890,600	JAN 83-DEC 85	09 DEC 89	
MED80	803,401	JAN 80-DEC 82	09 DEC 89	
MED77	775,781	JAN 77-DEC 79	09 DEC 89	
MED72	1,175,684	JAN 72-DEC 76	09 DEC 89	
MED66	1,310,563	JAN 66-DEC 71	09 DEC 89	
MESH VOC <sup>®</sup>	70,792	1990	29 JAN 90	
NAME AUTH <sup>®</sup>	340,894		20 JAN 90	
PDQ <sup>®</sup>		THRU DEC 89	28 DEC 90	
POPLINE™	173,221	1970-JAN 90	06 JAN 90	9001(EM)
SDILINE <sup>®</sup>	31,171	MAR 90	27 JAN 90	9003(EM)
SERLINE <sup>®</sup>	73,807	1990	09 JAN 90	
TOXLINE <sup>®</sup>	759,171	1981-1989	13 JAN 90	9001(EM)
TOXLINE65	698,414	PRE 1965-1980	04 MAR 89	
TOXLIT™	795,253	1981-1989	13 JAN 90	9001(EM)
TOXLIT65	586,405	1965-1980	01 SEP 87	

\*N.B. FILE IS UPDATED SEMI-MONTHLY; THIS IS PART 2 OF 2.

\*\*N.B. FILE IS UPDATED THREE TIMES A MONTH; THIS IS PART 2 OF 3.

**TOXNET COMPUTER**

CCRIS	2,062		12 DEC 89
DBIR™	1,135		08 JAN 90
EMICBACK	67,975		02 JUN 89
ETICBACK	46,374		30 JAN 89
HSDB <sup>®</sup>	4,202		14 JAN 90
RTECS <sup>®</sup>	101,505		19 DEC 89
TRI	76,737		20 NOV 89

Head, MMS: Carolyn B. Tilley  
 Editor: Toby Port  
 Assistant Editor: Annette Morris  
 Technical Notes Editor: Joyce A. Conner  
 (301) 496-6193

Direct Inquiries to:  
 MEDLARS Management Section  
 National Library of Medicine  
 Bldg., 38A, Rm. 4N421  
 Bethesda, Maryland 20894

The NLM Technical Bulletin is an administrative document sent to formal members of NLM's MEDLARS Online Network.

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## Technical Notes

Whenever applicable, the heading of each Technical Note includes a reference to the section of the Online Services Reference Manual, 1988 that is considered most relevant to the item being discussed, e.g., (Manual 4.7.2). Users should keep in mind that the item may pertain to other sections as well.

### PRESIDENTS' DAY HOLIDAY MONDAY FEB. 19

System	Rates/Status
ELHILL	non-prime/ non-guaranteed
TOXNET	non-prime/ guaranteed
DOCLINE	Not applicable non-guaranteed

#### Service Desks

MMS	not staffed
DOCLINE	not staffed

### MEDLARS TOLL-FREE NUMBER

The MEDLARS Management Section (MMS) Service Desk toll-free number 1-800-638-8480, available for questions or information on the MEDLARS system, may now be used by residents of Maryland. Previously this number was only available to residents of other states and the territories.

### NEW MESH HEADING

The MeSH Section at NLM announces the addition of a new MeSH heading, POLYMERASE CHAIN REACTION. Indexing with the new heading began January 16, 1990. References may be retrieved with this MeSH Heading beginning with the 9003 (EM) Part 2 update. Plans are underway to maintain all MEDLINE citations from 9001 (EM) forward as needed to reflect this new concept. For an informative and up-to-date

write-up of this important tool in molecular biology, see Science 1989 Dec 22;246(4937):1541, 1543-6.

This new heading is not listed in the printed MeSH tools as it was added after the MeSH tools were published. You may want to annotate your MeSH tools with the following:

#### POLYMERASE CHAIN REACTION

E5.393.330.500

In vitro method for producing large amounts of specific DNA or RNA fragments of defined length and sequence from small amounts of short oligonucleotide flanking sequences (primers). The essential steps include thermal denaturation of the double-stranded target molecules, annealing of the primers to their complementary sequences, and extension of the annealed primers by enzymatic synthesis with DNA polymerase. The reaction is efficient, specific, and extremely sensitive. Uses for the reaction include disease diagnosis, detection of difficult-to-isolate pathogens, mutation analysis, genetic testing, DNA sequencing, and analyzing evolutionary relationships.

only likely qualify are /drug eff /instrum /methods /stand /util (if by MeSH definition)

(90)

see under GENE AMPLIFICATION  
X PCR

#### CANCERLIT AND AIDSLINE AUTOMATIC SDIS

Due to the delay of rebuilding and updating CANCERLIT with 1990 MeSH, CANCERLIT Automatic SDIs for the 8912 (EM) and 9001 (EM) updates were run within several days of each other and mailed together the week of January 16. Users should expect to see charges for two sets of CANCERLIT SDIs on their January invoices. We expect to mail three sets of AIDSLINE Automatic SDIs, the 9001 (EM), 9002 (EM), and 9003 (EM) in February.

#### DATABASES AVAILABLE WITH 1990 MESH

Below is a summary of the MEDLARS databases that use Medical Subject Headings (MeSH) vocabulary along with the dates that they were made available with 1990 MeSH:

- MEDLINE (and its Backfiles), HEALTH, CATLINE, and AVLINE were updated with 1990 MeSH effective December 11, 1989.

- CANCERLIT was updated with 1990 MeSH on January 11, 1990. It included the 8912 (EM) update. The 9001 (EM) update became available on January 16, 1990.

- BIOETHICS was updated with 1990 MeSH on January 20, 1990.
- TOXLINE contains MeSH vocabulary in the TOXBIB and BIOSIS subfiles. Beginning with the TOXLINE update in December 8912 (EM), records added to both the TOXBIB and the BIOSIS subfiles contain 1990 MeSH. 1989 MeSH terms will remain on TOXBIB and BIOSIS records from earlier entry months until the entire TOXLINE file is regenerated sometime in February 1990. Searchers should adjust online strategies to account for the mixed years of MeSH vocabulary where needed until the TOXLINE file is regenerated. Watch the online ELHILL news for the date of the regeneration.

2. Records in MEDLINE and its backfiles have been enhanced with additional Secondary Source ID (SI) values for databanks of genetic sequences, in support of NLM's biotechnology effort. SI values for the Human Gene Mapping Library (HGML) have been introduced. Additional GENBANK SI values were also added.

3. Citations from MEDLINE up to and including the 8912 (EM) update that were not published in 1988 or 1989 were moved by date of publication to the appropriate backfile as part of year-end processing. The 9001 (EM) update and future updates to MEDLINE may contain dates of publication prior to 1988.

5. New ELHILL search capabilities that allow sorting of retrieval for online printing were discussed in the October 1989 issue of the *Technical Bulletin*.

#### DATABASES USING 1989 MESH

DENTALPROJ, TOXLINE, and POPLINE are not yet available with 1990 MeSH. Watch the online news for information about when the 1990 vocabulary changes have been made. Continue to search these files using 1989 MeSH headings and tree numbers. Be advised that all explodes work against 1990 trees. When exploding in these files, you must use the old 1989 tree number rather than the MeSH Heading (all E5.318.78: (MN) not EXP clinical trials).

#### NEW FEATURES FOR 1990 SYSTEM

A summary of some of the new features for the 1990 system are listed below. These will be described in more detail in the February issue (Special MEDLARS Update Issue) of the *Technical Bulletin*.

1. Title Field Text Words (TF) are now available for 4 files in 1990: CATLINE, AVLINE, AIDSLINE and CANCERLIT. Searching in CATLINE/AVLINE using the (TF) qualifier retrieves citations with Text Words from the Title (TI) and the Title Continuation (TC) fields. Searching (TF) in AIDSLINE or CANCERLIT retrieves citations with Text Words from the Title (TI) field. TF searching can be a useful way to narrow a search.

#### HSDB TAPES AVAILABLE

HSDB (Hazardous Substances Data Bank) tapes are now available through the NTIS (National Technical Information Service) subject to the completion of licensing agreements with NLM. HSDB is a factual, non-bibliographic databank focusing upon the toxicology of potential hazardous chemicals. It is enhanced with data from such related areas as emergency handling procedures, environmental fate, human exposure, detection methods, and regulatory requirements. EMT (Emergency Medical Treatment) data, recently added to the online file under an agreement with MICROMEDEX, Inc., will not be included on the tapes. HSDB contains over 4,200 chemical records and is 110 megabytes in size. Tapes will be provided in TOXNET Card Image Format. Currently, there is a \$5,000 per year minimum charge for these tapes. For further information about the tapes and how to request them, please write to:

MEDLARS Management Section  
National Library of Medicine  
Building 38A, Room 4N421  
Bethesda, Maryland 20894  
Attn: Tapes

**EMT (EMERGENCY MEDICAL TREATMENT)  
FIELD IN HSDB  
(Manual 26+)**

The EMT (Emergency Medical Treatment) field has been added to the HSDB file on TOXNET. These data have been obtained from the scientifically reviewed POISINDEX (R) database, under an agreement with MICROMEDEX, Inc. and will be updated quarterly. The EMT field includes information related to life support, clinical effects, laboratory analysis, treatment overviews and range of toxicity. Data are available for every HSDB chemical and are often extensive. EMT will greatly enhance the utility of HSDB for the emergency physician and other medical practitioners. An in-depth look at this field will be the subject of a future *Technical Bulletin* article.

**LIST OF SERIALS INDEXED FOR ONLINE USERS  
1990**

The List of Serials Indexed for Online Users, 1990 (LSIOU) may now be ordered from the National Technical Information Service (NTIS). Delivery is expected in mid-February. This publication is designed to provide complete bibliographic information on serials and congress proceedings cited in three MEDLARS files: MEDLINE (including the backfiles), HEALTH, and POPLINE. The publication number is PB90-109851/GBB. The hardcopy price is \$21.50 (\$43.00 non-U.S.); the microfiche price is \$11.00 (\$22.00 non-U.S.). There is a \$3.00 (U.S./Canada) shipping and handling charge required for each order (\$4.00 non-U.S.). Please send remittance with orders to:

National Technical Information Service (NTIS)  
5285 Port Royal Road  
Springfield, VA 22161  
(703) 487-4650 (for telephone orders with  
deposit account or credit card)

**1989 CUMULATED INDEX MEDICUS**

The 1989 Cumulated Index Medicus (CIM) may now be ordered from the U.S. Government Printing Office. This publication is a 16-volume cumulation of the citations appearing in the Index Medicus for 1989. The 1989 CIM has been expanded from the 14 volumes of

past editions and its format has been changed to conform with the monthly issues of Index Medicus. Volume 1 contains the Introduction, Medical Subject Headings (MeSH) and the List of Journals Indexed (LJI). Volumes 2-10 contain the subject sections; Volumes 11-15, the author sections; and Volume 16 contains the Bibliography of Medical Reviews.

We are expecting that the U.S. Government Printing Office will ship in late March. The stock number is S/N 617-052-00284-1. The U.S. price is \$307 (\$383.75 non-U.S.). Please include the title, price and stock number when placing an order. Orders should be sent to:

Superintendent of Documents  
U.S. Government Printing Office  
Washington, DC 20402-9322  
(202) 783-3238

**1990 INDEX MEDICUS SUBSCRIPTION PRICE  
ANNOUNCED; BLACK AND WHITE MESH; LJI**

The Superintendent of Documents has announced the 1990 annual subscription rate for Index Medicus (1990): \$310 (\$387.50 non-U.S.); GPO Code:IM90. The price includes twelve monthly issues, plus Medical Subject Headings ("Black and White" MeSH) and the List of Journals Indexed in Index Medicus (LJI) which are automatically included with the January issue. Information for ordering separate copies of these titles appears below. Order from Superintendent of Documents, U.S. Government Printing Office (address and phone number given above). The price for a single copy of a monthly issue of Index Medicus is \$46.00 (\$57.50 non-U.S.).

- Medical Subject Headings, 1990 ("Black and White" MeSH). The price is \$36 (\$45 non-U.S.) if ordered separately; GPO Code: IM90 (Medical Subject Headings). This publication is for use with the printed Index Medicus. Online searchers should use the Medical Subject Headings--Annotated Alphabetic List, 1990 instead. (Ordering information for the Annotated MeSH from NTIS was provided in the August 1989 issue of the *Technical Bulletin*.)

- List of Journals Indexed in Index Medicus, 1990. (LJI) The price is \$13.00 (\$16.25 non-U.S.) if ordered separately; GPO Code: IM90(List of Journals). MMS suggests that online searchers may want to use the List of Serials Indexed for Online Users, a more comprehensive list.

**NEW ACCESS PROCEDURES FOR TOXNET**

The new online access procedures for accessing TOXNET are published in Appendix A in this issue.

**ONLINE PRICING ALGORITHM**

The online pricing algorithm is included as Appendix B in this issue. The average online hourly rates are included only to estimate an average cost per hour for comparison and information purposes.

ChemID

Continued from page 1

file as a resource for chemical information. Searchers of NLM files who need to enhance their chemical search strategies should find ChemID a useful file to obtain information for a broad selection of chemical substances of interest.

**SCOPE**

The general scope of ChemID is coverage of chemicals of biomedical or regulatory interest. The file contains records that point to substances identified by Chemical Abstracts Service (CAS) Registry Numbers (RN) in files resident on either the ELHILL or TOXNET systems. The exceptions are those substances with RN's cited only in TOXLIT or TOXLIT65. In addition, ChemID will carry information for substances in other NLM files that do not have CAS RN's. The first increment of these will be approximately 20,000 records without RN's from the RTECS file on TOXNET.

**FIELDS**

ChemID records generally resemble those in CHEMLINE, but have several enhancements and differences. The data in most fields are qualified with its source appended in square brackets. Figure 1 on page 8 shows a modified ChemID unit record for Aspartame. Data with the source "[EXAMPLE]" were made up for illustrative purposes.

Following is a discussion of each data element:

**IDENTIFYING DATA**

**Registry Numbers (RN, ON)** - ChemID contains Chemical Abstracts Service Registry Numbers in the RN (Registry Number) and ON (Other Registry Number) fields. Most records in ChemID contain an RN from the source file. The source file was compiled from files such as HSDB and RTECS and was then used to create the Chem ID file. The RN and ON are very useful tools both in identifying a substance, as well as in searching other files. The Toxic Substances Control Act Inventory of Substances (TSCA) published by the US Environmental Protection Agency (EPA) is the major source of Other CAS Registry Numbers in the ON field, which carries the TSCA source in square brackets.

**ID Number (ID)** - The ID field is only used if no CAS RN is available. For the first version of ChemID, the ID field will be used to carry the RTECS number for about 20,000 records from this file that do not currently carry a

RN. In the future, we expect to add more substances of interest that do not have RN's, including biomedical and regulatory materials. Therefore, the ID field will become increasingly important as a key in leading the user back to the source of this type of data.

**Molecular Formula (MF)** - The MF field is pulled together from a variety of sources which are referenced in square brackets. There may be more than one source of formulas for a given record, or in some cases, no MF will be available. Because of differences in conventions used in creating a molecular formula, formulas from different sources will not always agree. Molecular formulas from TSCA use the CAS convention and are most similar to those found in CHEMLINE. Formula Fragments (FF) are generated from the MF field using the same rules as those applied to CHEMLINE.

**NAME FIELDS**

Chemical nomenclature is available in four fields in ChemID; an N1 (Systematic Name) field, an SY (Synonym) field, an NM (Name of Substance) field, and an MX (Mixture Name) field. Names from the N1, SY, and NM fields will all be searchable in the SY field, i.e., if you NBR a name from the N1 field, it will be displayed as an SY. The use of a single searchable name field relieves the user from multi-meaning messages which would occur if the name is found in more than one name field. The MX field creates a separate MX searchable field, thus separating names of mixtures containing a pure component from names of the component. Name fragments are generated from all four name fields using the same rules as in CHEMLINE.

Following is a description of each name field.

**Systematic Name (N1)** - Systematic names are carried in ChemID to allow users to identify more clearly the nature of a chemical. The content of this field is obtained from a variety of sources, and does not reflect a single type of systematic nomenclature. If available from our sources, names in this field may have single or multiple occurrences. The two major sources of systematic nomenclature are the EPA TSCA Inventory, and the RTECS file. The source designation is appended to the name in square brackets.

**Name of Substance (NM)** - Generally speaking, names in this field will be the most commonly used name(s) or official generic name(s) for a given substance. As such, these names will be the most useful in searching for data in free-text databases such as TOXLINE in conjunction with an RN. Names are chosen for this field if a source

RN - 22839-47-0  
 ON - 7421-84-3 [TSCA]  
 ON - 53906-69-7 [TSCA]  
 MF - C14-H18-N2-O5 [HSDB:TSCA:USPDDN]  
 N1 - L-Phenylalanine, N-L-alpha-aspartyl-, 1-methyl ester  
     [RTECS:TSCA:USPDDN]  
 N1 - SUCCINAMIC ACID, 3-AMINO-N-(alpha-CARBOXYPHENYETHYL-,  
     N-METHYL ESTER, stereoisomer [RTECS]  
 N1 - 3-Amino-N-(alpha-carboxyphenethyl)succinamic acid N-methyl  
     ester [USPDDN]  
 NM - Aspartame [MESH:HSDB]  
 NM - Aspartame [USAN:INN] [USPDDN]  
 SY - alpha-Methyl-L-aspartyl-L-phenylate [TSCAINV] [NLM]  
 SY - APM [HSDB:USPDDN]  
 SY - Aspartam [INN-French] [NLM]  
 SY - Aspartame [MESH:RTECS]  
 SY - Aspartamo [INN-Spanish] [NLM]  
 SY - Aspartamum [INN-Latin] [NLM]  
 SY - Aspartylphenylalanine Methyl Ester [HSDB:MESH:RTECS]  
 SY - Candere1 [HSDB:RTECS]  
 SY - DIPEPTIDE SWEETENER [RTECS]  
 SY - EQUAL [HSDB:RTECS]  
 SY - Methyl aspartylphenylalanate [RTECS]  
 SY - N-L-ALPHA-ASPARTYL-L-PHENYLALANINE 1-METHYL ESTER [HSDB]  
 SY - Nutrasweet [HSDB:RTECS]  
 SY - SC 18862 [HSDB:MESH]  
 SY - Sc-18862 [USPDDN]  
 SY - SUCCINAMIC ACID, 3-AMINO-N-(alpha-CARBOXYPHENETHYL)-,  
     N-METHYL ESTER, stereoisomer [HSDB:RTECS]  
 SY - Sweet dipeptide [HSDB:RTECS]  
 SY - TRI-SWEET [HSDB]  
 SY - 3-AMINO-N-(ALPHA-CARBOXYPHENETHYL)SUCCINAMIC ACID N-METHYL  
     ESTER [HSDB]  
 MX - Diet Drink [EXAMPLE]  
 MH - Aspartame [MESH]  
 CC - Reproductive Effect [RTECS]  
 CC - Sweetener [USPDDN]  
 NO - This is a non-nutritive peptide sweetener. [EXAMPLE]  
 LO - TOXLINE  
 LO - TOXLINE65  
 LO - TOXLIT  
 LO - TOXLIT65  
 LO - MEDLINE  
 LO - MED86  
 LO - MED83  
 LO - MED80  
 LO - MED77  
 LO - CANCERLIT  
 LO - RTECS  
 LO - HSDB  
 LO - ETICBACK  
 LO - TSCAINV

Figure 1 - Aspartame Record from ChemID

file carries them in an identifiable selected name field, or if a name is an official generic name such as from USAN (United States Adopted Name).

The HSDB Name field, MESH chemical records NM field, MESH heading for chemicals with a CAS number, MH field, and the CCRIS Name field all contribute directly to this ChemID field. In addition, all names qualified with the generic tags of ANSI, BSI, ISO, BAN, DCF, USAN and INN are "promoted" from the Synonym field to the NM field. The name Aspartame in the sample record comes from the HSDB and MeSH files, and is an official USAN and INN generic name as shown by the tags carried in square brackets.

**Synonym (SY)** - The Synonym field contains chemical names obtained from a variety of sources to help users find records of substances of interest. Names are sorted in alphabetical order, and are all followed by one or more sources of the name in square brackets. Data in square brackets are not indexed into the searchable SY field. In the sample record shown in Figure 1, typing "nutrasweet" will retrieve the aspartame record based on its occurrence in the SY field.

**Name of Mixture (MX)** - If the substance in the record retrieved by a user is present in a mixture with other substances, the name of that mixture is carried in this field. Initially, the only source is USPDDN, and the field contains the names of drug mixtures found in CHEMLINE at the end of the Synonym field after a "[Component of]" designation. In the sample, the name "Diet Drink" is used as a mock example of a mixture containing Aspartame. This mixture name is not present in the actual aspartame record.

#### OTHER FIELDS

**Mesh Heading (MH)** - Chemical names are carried in the ChemID MH field if they have been found in the MeSH file in the MH field of a record that also contains

an associated CAS RN. In the sample record, the MH "Aspartame" is shown. In order to search this field, the user must qualify the search term with (MH). There is no mapping in the ChemID MH field, nor any use of subheadings. Since a chemical MESH Heading is an important name, it is also repeated in the NM field with a source of "[MESH]".

**Classification Code (CC)** - This field carries information describing the general use category of a given substance and is obtained from the RTECS file, as well as from TSCA and USPDDN. The initial version of ChemID carries more current CC codes from RTECS and USPDDN (1990 Edition) than CHEMLINE.

**Note Field (NO)** - This field currently contains TSCA definition data, as well as NLM search notes. It is Text Word searchable using the qualifier "(NO)".

**Locator (LO)** - The Locator field contains the names of files where the RN, or the ID has been used to index data. This field will point to the same files as CHEMLINE. Unlike CHEMLINE, however, ChemID will carry no records that reference only TOXLIT and/or TOXLIT65, because such substances are not within the scope of this file. For records that do not have RN's, such as certain records in RTECS, there will be an ID number and one Locator. The ID number may be used in the source file to retrieve data (see search example).

#### Searching and Printing

Searching ChemID is similar to searching CHEMLINE and in some respects is easier. A user may input a substance name of interest without qualification, and the file will default to a search of the appropriate fields. The default for an unqualified search is to all fields except the NF, NO, and MH fields. Thus to search for pyrilene, the following search dialog shown in Figure 2 suffices.

USER:  
**file chemid**  
 PROG:  
 YOU ARE NOW CONNECTED TO THE CHEMID (NON-ROYALTY) FILE.

SS 1 /C?  
 USER:  
**pyrilene**  
 PROG:  
 SS (1) PSTG (1)

SS 2 /C?  
**print full**  
 PROG:

1  
 RN - 79-55-0  
 MF - C10-H21-N [RTECS:TSCA:USPDDN]  
 N1 - Piperidine, 1,2,2,6,6-pentamethyl- [RTECS:TSCA]  
 NM - Pempidine [INN:BAN] [USPDDN]  
 SY - M+B 4486 [RTECS]  
 SY - Pempidina [DCIT] [NLM]  
 SY - Pempidine [MESH:RTECS]  
 SY - Pempidinum [INN-Latin] [NLM]  
 SY - Perolysen [RTECS]  
 SY - Pyrilene [RTECS]  
 SY - Tenormal [RTECS]  
 SY - 1,2,2,6,6-PENTAMETHYLPIPERIDINE [RTECS]  
 CC - Drug / Therapeutic Agent [RTECS]  
 LO - TOXLINE  
 LO - TOXLINE65  
 LO - TOXLIT  
 LO - TOXLIT65  
 LO - MEDLINE  
 LO - MED86  
 LO - MED83  
 LO - MED80  
 LO -- MESH  
 LO - RTECS  
 LO - ETICBACK  
 LO - TSCAINV

Figure 2





```

USER:
c 6607
PROG:
SS (2) PSTG (1)

SS 3 /C?
prt fu
PROG:

1

ID - NIOSH AB4547040
N1 - ACETAMIDE, N-BENZYL-N-METHYL-2-(PYRROLIDINYL)-, HYDROCHLORIDE
SY - N-BENZYL-N-METHYL-2-(PYRROLIDINYL)ACETAMIDE HYDROCHLORIDE
SY - C 6607
CC - Drug / Therapeutic Agent
CC - Skin / Eye Irritant
LO - RTECS
    
```

Figure 4

If a record from the source file without an RN is retrieved, the ID would be printed in all standard formats instead of the RN/ON combination. See Figure 4.

In this case, the NIOSH number has printed in place of an RN. This number may be carried into the RTECS file on TOXNET, and input directly to retrieve the appropriate data for this substance.

As can be seen in Figure 3, most fields in ChemID are individually searchable, and in addition, generic searching with Name Fragments (NF) and Formula Fragments (FF) is available. The rules for indexing the fields in ChemID generally follow those for the corresponding fields in CHEMLINE, and details may be found in the appropriate manual or in the ChemID Explain.

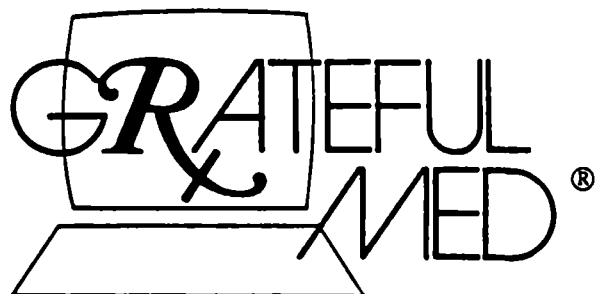
## CONCLUSION

ChemID is patterned to look like other chemical information resources at NLM and as such should be easy to use for experienced searchers. We also encourage searchers who have been reluctant to use our more complex chemical dictionaries to try ChemID. It is priced at a lower rate, and can probably answer many of their chemical questions. Usage of ChemID can help develop familiarization with advanced features such as Name Fragment Search and this expertise can be used in other NLM files such as CHEMLINE and in the Chemical Records in the MeSH File.

Since ChemID does not cover substances cited by RN only in TOXLIT and/or TOXLIT65, searchers should use it in the context of other chemical information resource available at NLM. Because publicly available sources of chemical information have been used, certain data such as the Molecular formula and Systematic Name may not be consistently available in ChemID when compared to CHEMLINE. Users who need this information may want to use both files in concert according to their search needs.

ChemID will contain some unique data and features, such as records that cannot be described by a CAS RN, and represents an important part of a multi-tiered approach to searching for chemical concepts in NLM files. We will actively enhance its capabilities in the coming years, and encourage user feedback and suggestions concerning this file.

To obtain more information online, a user may type "EXPLAIN CHEMID" at any "USER:" prompt. The system will respond with a description of the file, a delineation of the unit record, and, optionally, a more detailed description of all data elements. To switch to ChemID, just type "FILE CHEMID" and begin searching (typing "FILE CHEM" will put you into CHEMLINE). Try ChemID by typing in your "favorite" chemical name, print full, and take advantage of this new resource.



VERSION 4.0

[Editor's Note: Each month the Technical Bulletin features a column concerning GRATEFUL MED, often consisting of questions/answers. Contributions for this column will be appreciated. Please note the use of icons to indicate whether the item pertains to the IBM or Macintosh version of GRATEFUL MED.]



A user of the IBM version writes: It's easy to forget which search terms were used to produce a particular search if you don't write them down. I write poorly and am somewhat lazy, so I simply use the Shift/PrtSc keys to print out a copy of the Input Form Screen just before I go on to run the search. The results of my search are then printed below this. If nothing is found, I will indicate this. Some of your readers might find this approach useful.

Comment: Many users have requested a method that would print the search terms along with the results. Your suggestion will be something they may want to try.



*Question: How can I update the searches I do with GRATEFUL MED on my Macintosh?*

**Answer:** Updates are best done in the SDILINE database. SDILINE (Selective Dissemination of Information onLINE) carries citations for the most recent month in MEDLINE.

The easiest method is to enter your search terms on an SDILINE search window and then select "Save as..." from the File pull down menu.

If you have already saved the search window as a MEDLINE Search file, you can re-save this as an SDILINE search. To do this, open the Search file and then click on the CHANGE DATABASE button at the bottom of the window; select SDILINE from the list of databases, and when your search appears on a SDILINE search window you can select "Save as..." from the File pull down menu and save it under a new name.

Once a month you can open this Search file and run the search in SDILINE to see if there are any new articles on your topic.

All users doing updates should note: SDILINE is scheduled to be updated (replaced with the new entries for MEDLINE) on the following dates of 1990: Jan. 27, Feb. 24, Mar. 31, Apr. 28, May 26, Jun. 30, Jul. 28, Aug. 25, Sep. 29, and Oct. 27. (This schedule is subject to change.)



*Question: I've entered my User ID, password, and telephone numbers in the Parameters Window of the Macintosh version, but the program keeps giving me an error message to re-enter this information.*

**Answer:** Make sure you have entered two telephone numbers for each network you use, i.e., a primary and an alternate number. Since most cities do not have alternate network numbers, enter the same number for both the primary and the alternate numbers.

## **MEDLARS System Beta Testers**

As the National Library of Medicine continues to enhance search capabilities on the MEDLARS system, the MEDLARS Management Section needs searchers to help us beta test new system features. We are looking for both search intermediaries and health professionals who search directly (using the ELHILL command language, not the GRATEFUL MED INPUT form screen), using GRATEFUL MED, or other telecommunications software (i.e., PC-COMM, SMARTCOM, Red Ryder, etc.) with PC's, or terminals. Being a beta tester will require a substantial time commitment for a two-to four-week period, but the experience should provide you with an opportunity to become familiar with system features in advance of their implementation.

NLM will provide beta testers with a non-billed User ID code to use for all testing. Beta testing experience with GRATEFUL MED has proved extremely valuable to NLM. It is our hope that command language searchers can also provide us with valuable assistance.

If you are interested in becoming a beta tester, please send your name, address and a brief description of your searching experience to:

Ginny DuPont  
MEDLARS Management Section  
National Library of Medicine  
8600 Rockville Pike  
Bethesda, MD 20894  
or call 800-638-8480 or  
301-496-6193

## IRIS to Join TOXNET

Philip Wexler  
 Bruno Vasta  
 Toxicology Information Program, NLM

IRIS (Integrated Risk Information System), a database created by the EPA (Environmental Protection Agency) and containing health risk and EPA regulatory information on nearly 400 chemicals, is expected to join the MEDLARS TOXNET system by the spring of 1990. A collaborative project between EPA and NLM, this database is an official EPA-authorized, publicly available online version of the IRIS data. This article will briefly examine the risk assessment process, describe the overall structure of IRIS, and highlight several categories of data. Later articles will review the unit record in detail and explore searching capabilities and strategies.

### Risk Assessment

Toxic chemicals can result in biological injuries to living organisms. However, in order for this to happen, two criteria must be met. First, the chemical must be inherently toxic. That is, it must have the ability to cause such injury. Second, the chemical must have the opportunity to cause the injury. That is, living organisms must be exposed to it. People have become increasingly concerned about the risk posed by commercial chemicals in the workplace, at home, and in the general environment. The still-young field of chemical risk assessment estimates the probability of harm and the severity of the toxic consequences caused by chemicals. Risk assessment is different from but prerequisite to "risk management", which seeks to determine the acceptability of various levels of risk by additionally examining economic, social, and political factors. Risk assessment provides information, while risk management is the action taken based on that information.

### EPA's Risk Assessment Process and IRIS

The EPA has adopted a four-step risk assessment process, as recommended by the National Academy of Sciences: 1. Hazard identification, 2. Dose-Response assessment, 3. Exposure assessment, and 4. Risk characterization. IRIS is a tool that provides information on hazard identification and dose-response assessment, the first two steps of this process. Combined with data on exposure, IRIS can be used to

characterize risk, which can then lead to management decisions to protect the public health.

IRIS records focus on risk assessment data and their derivation, while containing supporting information on chemical properties, toxicity, and regulations. The major IRIS categories are:

1. Substance Identification/Use
2. Chemical & Physical Properties
3. Noncarcinogenic Assessment - Lifetime Exposure
4. Carcinogenicity Assessment - Lifetime Exposure
5. Drinking Water Health Advisories/Acute Toxicity
6. Aquatic Toxicity Assessment
7. Exposure Standards and Regulations
8. References

IRIS data, particularly those contained in categories 3, 4, and 5 (excluding Acute Toxicity), are highly peer reviewed. For example, the noncarcinogenic and carcinogenicity assessments represent consensus judgements of EPA's Reference Dose (RfD) Work Group and Carcinogen Risk Assessment Verification Endeavor (CRAVE) Work Group, respectively. These Agency-wide work groups include high-level scientists from EPA's program offices (hazardous waste, air, water, pesticides) and the EPA Office of Research and Development. As new information becomes available, these work groups re-evaluate their work and revise IRIS files accordingly. It should also be pointed out that data gaps do exist and not every IRIS chemical has data available for each of the above categories.

### Noncarcinogenic Assessment

A noncarcinogenic assessment (Category 3) addresses toxic effects, other than carcinogenic, of chemicals. In the derivation of such IRIS data, a "threshold" toxic dose is assumed. That is, there is assumed to be some dose of the chemical below which no significant biological damage occurs. Category 3 considers both oral and inhalation exposures and presents for each, the Reference Dose (RfD). EPA defines RfD as "An estimate (with uncertainty spanning perhaps an order of magnitude) of a daily exposure to the human population (including sensitive subgroups) that is likely to be without appreciable risk of deleterious effects during a lifetime." To simplify, an RfD is, more or less, the daily amount of a chemical people can be exposed to throughout their lives without suffering any ill effects. This number is derived by examining the literature of animal and/or epidemiological studies on the particular chemical. Suppose Chemical X has an oral RfD of  $1 \times 10^{-1}$  mg/kg/day. This would suggest that a daily

exposure to approximately 0.1 milligram of chemical per kilogram of body weight is unlikely to result in adverse effects over a lifetime.

#### **Carcinogenicity Assessment**

Cancer risks (Category 4), in contrast to noncarcinogenic risks as described above, are generally assumed to take place in the context of a "non-threshold" mechanism. Thus, EPA carcinogen policy implies that there is no absolutely safe level of carcinogen exposure greater than zero and one must, instead, speak in terms of "acceptable" risks. These acceptable risks for carcinogens vary widely depending upon the context in which they are considered although the figure of  $1 \times 10^{-6}$  (one in one million) is frequently cited. EPA classifies carcinogens in one of five groups: A) human carcinogen, B) probable human carcinogen, C) possible human carcinogen, D) not classifiable as to human carcinogenicity, and E) no evidence of carcinogenicity for humans. "Unit Risks" are also provided for both inhalation (air unit risk) and oral exposures (drinking water unit risk). The unit risk for a chemical is the upper-level lifetime risk of contracting cancer when exposed to the chemical at a concentration of 1 ug/L in water (assuming consumption of 2 liters of water per day), or 1 ug/cu.m in air (assuming continuous exposure). Let's say hypothetical Chemical Y has an inhalation unit risk of  $2 \times 10^{-5}$ . This would imply that the risk of contracting cancer is probably no worse than 2 in 100,000 if there is continuous exposure to 1 microgram of this chemical per cubic meter of air over a lifetime.

#### **Health Advisories**

Drinking Water Health Advisories (Category 5) provide an estimate of acceptable drinking water levels for a chemical substance based on health effects information.

Short-term, longer-term, and lifetime health advisories are listed in IRIS. Chemical Z may have a ten-day health advisory for a child of  $1.4 \times 10^{-1}$  mg/L. This would indicate that adverse effects are unlikely to occur in a child exposed daily to 0.14 milligram of this chemical in 1 liter of water over 10 days. Health Advisories are not legally enforceable Federal standards, but serve as technical guidance to assist Federal, state, and local officials.

#### **Use of Iris**

IRIS should appeal to a variety of users. It was originally designed for EPA staff but is also of interest and use to state and local environmental and health officials, industry, consulting firms, and the general public. For example, IRIS may be used to evaluate the potential human health hazards from a hazardous waste site, or to determine if the level of a contaminant in a drinking water supply is of concern. IRIS can also be used to learn about EPA regulations concerning specific chemicals.

#### **Caveats**

The above description of risk assessment is highly simplified and merely intended to give potential users unversed in the field a flavor of the terminology. Risk assessment is a complex process fraught with uncertainties. IRIS is a first step at extracting from the voluminous data on hazardous chemicals, some quantitative estimates of real-life dangers which those chemicals may pose to humans. It should prove a fascinating and eye-opening file for anyone concerned about the health effects of chemicals.

# Serials Update

## INDEXED TITLES UPDATE, JANUARY 1990

The following titles cited in MEDLINE, HEALTH, and POPLINE have recently been selected for indexing, undergone a title change, or ceased publication. This list is not cumulative; the information provided is only for titles whose status has changed since the

last UPDATE. More detailed information may be found in SERLINE. For further information, please contact MMS or Ms. Esther Baldinger, (301) 496-1276, Technical Services Division, NLM.

### TITLES SELECTED FOR INDEXING, DECEMBER 1989

IDL REVISTA DEL ATENEO ARGENTINO DE ODONTOLOGIA  
 REV ATENEO ARGENT ODONTOL  
 16,1980?--  
 ATENEO ARGENTINO DE ODONTOLOGIA  
 BUENOS AIRES ARGENTINA  
 NLM COLLECTS 1989- CONTINUES: REVISTA  
 ORTOPEDIA MAXILAR.  
 INDEXING BEGAN WITH V22N2, APR-OCT 1987.  
 IN PROCESS 0326-3027  
 SR0066922 JC: AJV

### TITLE CHANGES, DECEMBER 1989

IM ADVANCES IN FOOD AND NUTRITION RESEARCH  
 ADV FOOD NUTR RES  
 33,1989--  
 ACADEMIC PRESS  
 NEW YORK NY UNITED STATES  
 CONTINUES: ADVANCES IN FOOD RESEARCH.  
 IN PROCESS 1043-4526  
 SR0067066 JC: AJS

HLI JOURNAL OF AIR MEDICAL TRANSPORT  
 J AIR MED TRANSP  
 8N9,OCT 1989--  
 WORDPERFECT PUBLISHING CORPORATION  
 OREM UT UNITED STATES  
 MERGER OF: AEROMEDICAL JOURNAL; AND,  
 HOSPITAL AVIATION.  
 ON ORDER  
 SR0067140 JC: AKI

IM BIOSENSORS AND BIOELECTRONICS  
 BIOSENS BIOELECTRON  
 5N1,1990--  
 ELSEVIER APPLIED SCIENCE  
 BARKING ENGLAND  
 CONTINUES: BIOSENSORS.  
 IN PROCESS 0956-5663  
 SR0067129 JC: AKA

IM JOURNAL OF NEURAL TRANSMISSION. GENERAL  
 SECTION  
 J NEURAL TRANSM GEN SECT  
 78,1989--  
 SPRINGER VERLAG  
 WIEN AUSTRIA  
 CONTINUES IN PART: JOURNAL OF NEURAL  
 TRANSMISSION.  
 IN PROCESS  
 SR0067054 JC: AJ2

HLI FAULKNER AND GRAYS MEDICINE AND HEALTH  
 FAULKNER GRAYS MED HEALTH  
 43N45,NOV 13 1989--  
 FAULKNER AND GRAY  
 WASHINGTON UNITED STATES  
 CONTINUES: MEDICINE AND HEALTH.  
 IN PROCESS  
 SR0067138 JC: AKE

### TITLES NO LONGER INDEXED AS OF DECEMBER 1989

HLI EMERGENCY  
 EMERGENCY  
 10N2,FEB 1978--  
 HARE PUBLICATIONS  
 CARLSBAD CA UNITED STATES  
 CONTINUES EMERGENCY PRODUCT NEWS.  
 INDEXING BEGAN WITH V18N1, JAN 1986 AND  
 CEASED WITH V21N12, DEC 1989.  
 W1 EM661Q 0162-5942  
 E05770000 JC: EME

HLI HEALTH INDUSTRY TODAY  
 HEALTH IND TODAY  
 46,1983--  
 LIPPINCOTT  
 PHILADELPHIA UNITED STATES  
 CONTINUES: SURGICAL BUSINESS.  
 INDEXING BEGAN WITH V50N1, JAN 1987 AND  
 CEASED WITH V52N12, DEC 1989.  
 W1 HE351B 0745-4678  
 H05490000 JC: HIT





New Access Procedures for TOXNET

Beginning February 1, 1990, there will be a single address per telecommunication network (TELENET, TYMNET, CompuServe, InfoNet) for accessing TOXNET. Depending upon which database you select to search, you will be transparently transferred to the appropriate one of TOXNET's two Data General MV10000 minicomputers.

The following chart indicates the unique addresses for each of the telecommunication networks and the point in the logon procedure where they are entered:

<u>Network</u>	<u>TOXNET Address</u>	<u>Enter At:</u>
TELENET	C TOXNET	After @ Sign
TYMNET	TOXNET	After PLEASE LOG IN:
CompuServe	TOXNET	After HOST NAME
InfoNet	TN	After CENTER:

Notes:

(a) The CompuServe and InfoNet TOXNET addresses have not been changed.

(b) The TELENET addresses C 301 633 for TOXNET and C 301 55031 for TRI will be retained. However, C TOXNET, as shown above, is the most efficient way of getting TELENET entry to TOXNET.

(c) For complete network login instructions, please consult chapter 3 of the Online Services Reference Manual (for TELENET and TYMNET), and the April 1989 issue of the NLM Technical Bulletin (for CompuServe and InfoNet)

The following set of screens represents TOXNET's new introductory front-end sequence:

I. WELCOME TO THE NATIONAL LIBRARY OF MEDICINE'S TOXICOLOGY DATA NETWORK (TOXNET)

PLEASE ENTER USERID/PASSWORD  
 \*\*\*\*\*

{This screen has not been changed.}

IIa. ENTER TERMINAL TYPE OR L TO LIST CHOICES:

{This screen will display if you have never before entered a terminal type. Enter a terminal type or type L to list the available choices. Enter the word DUMB if your terminal type does not match any of the other screen choices.}

I Ib. ENTER TERMINAL TYPE OR L TO LIST CHOICES OR  
PRESS <RETURN>: TV955/

{This screen will display for a user who has previously selected a terminal type. In this example, the user last accessed TOXNET with a TV955 terminal, which subsequently became the default terminal type. Pressing return will select this default. Alternately you may enter a different terminal type or type L to list the available choices.}

III. Which TOXNET database would you like to access:

- [1] HAZARDOUS SUBSTANCES DATA BANK - [HSDB]
- [2] REGISTRY OF TOXIC EFFECTS CHEMICAL SUBSTANCES  
- [RTECS]
- [3] CHEMICAL CARCINOGENESIS RESEARCH INFO SYS - [CCRIS]
- [4] ENVIRONMENTAL MUTAGEN INFO CENTER BACKFILE  
- [EMICBACK]
- [5] ENVIRONMENTAL TERATOLOGY INFO CENTER BACKFILE  
- [ETICBACK]
- [6] DIRECTORY OF BIOTECHNOLOGY INFORMATION RESOURCES  
- [DBIR]
- [7] TOXIC CHEMICAL RELEASE INVENTORY - [TRI]

Please enter the number or mnemonic of your choice: HSDB/

{User selects database by number or mnemonic. HSDB is the default database. Hitting <RETURN> here will select HSDB.}

IV. Would you like to access [Selected Database] by:

- [1] Direct Searching?
- [2] Menu Searching?

Please enter the number of your choice:

{This screen will display for those files (only TRI at the present time) with both direct and menu interfaces. The last interface selected will be retained as the default.}

You may override any of these queries with a STOP Y to completely exit the TOXNET system. The FILE command will also allow you to bypass the queries. Typing FILE CCRIS, for example, will automatically switch you to the CCRIS direct searching mode. Thus, experienced searchers can access their database of choice without stepping through the entire introductory sequence.

EFFECTIVE JANUARY 1, 1990

APPENDIX B

NLM ONLINE PRICING ALGORITHM CHARGES TO DOMESTIC USERS 1/

File	Connect Charge (Per Hour)		Search Statement Charge	Online Citation Charge	Interaction Charge (Carriage Returns)	Computer Resources Disk Accesses (Per 100)		Online Character Charge (Per 1,000)		Average Searcher Charges* (Per Hour)	
	Non-Prime	Prime				Non-Prime	Prime	Non-Prime	Prime	Non-Prime	Prime
<u>ELHILL COMPUTER</u>											
MEDLINE & Backfiles	\$ 5.10	\$ 7.85	\$.02	\$.01	\$.01	\$.07	\$.13	\$.08	\$.12	\$16.50	\$23.50
TOXLIT & TOXLIT65	36.10**	38.85**	.63**	.46**	.01	.07	.13	.08	.12	165.00	171.00
TOXLINE & TOXLINE65	5.10	7.85	.02	.01	.01	.07	.13	.08	.12	16.50	23.50
CHEMLINE	36.10***	38.85***	.34***	.46***	.01	.07	.13	.08	.12	101.00	107.00
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